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ABSTRACT

This conference proceedings includes 24 papers about outdoor educational and recreational programs, program planning, instructional techniques, educational strategies, leadership skills, and program outcomes. Entries are: (1) Opening Session: "Out of Our Corsets and into the Woods: A Fun Look at the History of Women Adventurers" (Denise Mitten); (2) "Practical Approaches for Teaching Leave No Trace" (Aram Attarian); (3) "Women in the Wilderness: Theme-Based Outdoor Programming at the University of Florida" (Cheryl Berger, Christy Vollbracht); (4) "BMM Approach to Outdoor Recreation Programming" (Bob Brookover, Rick Harwell); (5) "Effective Expedition Planning" (John Cederquist); (6) "The Psychology of Judgment for Outdoor Leaders" (Kent Clement); (7) "UIAGM Ropehandling Techniques" (K. Ross Cloutier); (8) "Case Studies in Wilderness Medicine" (Melissa Gray, Shana Lee Tarter); (9) "Objectives Based Program Planning for Outdoor Recreation" (Phillip Heeg); (10) "Outdoor Recreation Hazard Assessment and Management Planning" (Phillip Heeg); (11) "What Is the Message in the Medium? Mixed Signals for National Park and Wilderness Users" (Michael G. Huffman, James E. Fickle); (12) "Building a Backcountry Yurt: Ecological Design Intelligence within Outdoor Programming" (Kevin Kobe, Norman Goltra); (13) "The Effects of Family Participation in an Outdoor Adventure Program" (Steven D. Kugath); (14) "Outdoor Adventure Programs Fulfilling Heroic Archetypal Patterns" (Johnny Lee); (15) "Redesigning a Club Structure for the 90's" (Kurt Merrill); (16) "Path of the Professional" (Russell E. Parks); (17) "Will the Real Eco-Educator Please Stand Up?" (Janet Ross); (18) "Limiting Employee Turnover through Job Satisfaction and Commitment" (Colleen Swagar); (19) "Adaptive Training's Effect on Self-Perception" (Derek W. Tate); (20) "Outdoor Program Staff Exchange (OPSE)" (Tim Thomas); (21) "The Art of Teaching Map and Compass: Instructional Techniques, Curricular Formats and Practical Field Exercises" (Ron Watters); (22) "University Outdoor Programs: State of the Art 1996" (David J. Webb); (23) "The Value of Adventure" (Scott F. Wood); and (24) "Group Dynamics and Initiative Activities with Outdoor Programs" (Lynn Zwaagstra). Contains references. Includes conference highlights and history, conference schedule, and presenter profiles. (SV)

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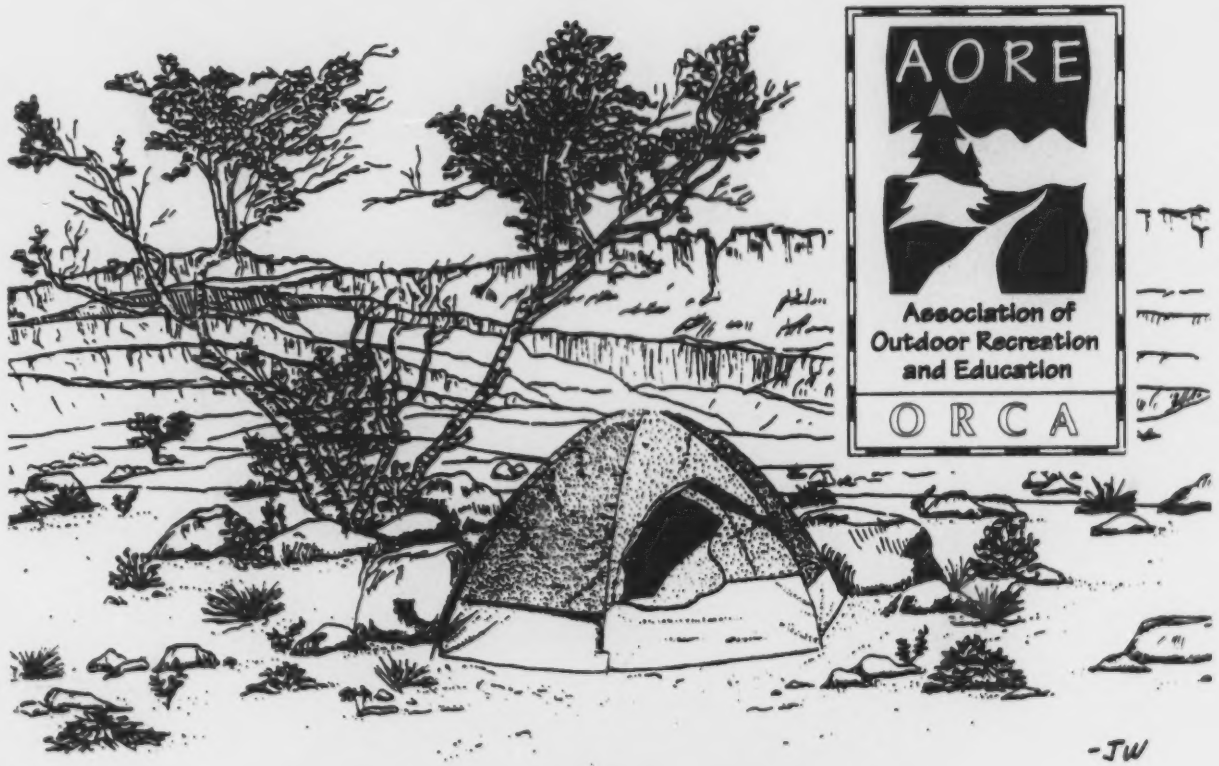

Back to the Basics
University of Utah, November 1996

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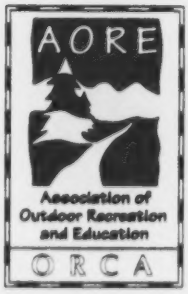
Proceedings of the 1996 International Conference on Outdoor Recreation and Education (ICORE)

Held at the University of Utah, November 7–9, 1996

Edited by

Steve Guthrie, Jennifer Macke, Ron Watters



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Introduction

The International Conference on Outdoor Recreation and Education has been in existence since the first one was held in 1984 in Bozeman Montana. The conference was created out of a need to exchange information between professionals, students, researchers and interested individuals involved in nonprofit outdoor education programs across the world. Each year the conference is sponsored by the Association of Outdoor Recreation and Education and hosted by a participating institution.

The 1996 conference was hosted by the University of Utah in Salt Lake City. The Student Union Ballroom was the main meeting area with excellent meeting rooms and seminar facilities adjoining. The location was perfect for drawing people together on both an informal and organized basis.

Denise Mitten, a pioneer in the presence of women leaders in outdoor recreation, was the keynote speaker. Other highlighted speakers included Conrad Anker, climber extraordinaire, and Doug Robinson, who has often been personified as "John Muir meets Jack Keroac".

This publication has been assembled as a means of sharing information presented at the conference to those who were unable to attend. For those of us who did have the opportunity to attend, it serves as a formal, written record of conference programs and events.

The field of outdoor recreation has been booming in the last ten years. As demand has increased and programs expand the International Conference on Outdoor Recreation and Education has also continued to expand and grow. Through the existence of AORE, which was formed specifically to insure the life and quality of this conference, the organization of more resources will continue to flourish. In the name of future generations we continue to let Rachel Carson's words stay at the forefront of our minds:

"What is the value of preserving and strengthening this sense of awe and wonder, this recognition of something beyond the boundaries of human existence? Is the exploration of the natural world just a pleasant way to pass the golden hours of childhood or is there something deeper? I am sure there is something much deeper, something lasting and significant. Those who dwell, as scientists or laymen, among the beauties and mysteries of the earth are never alone or weary of life. Whatever the vexations or concerns of their personal lives, their thoughts can find paths that lead to inner contentment and to renewed excitement in living. Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts."

Acknowledgments

A special thank you is extended to all those who helped make the 1996 International Conference on Outdoor Recreation and Education a success. Particular thanks is due to Rob Jones, Brian Wilkinson and Stacey Kaster from the University of Utah who served as conference organizers. Also several AORE Board Members played key roles including Rena Koesler of Longwood College and President of AORE, Jennifer Macke of University of California - Berkeley and Chairperson of the Conference Assistance Committee, and Phil Heeg of the US Airforce and Chair of the new Conference Awards Committee. The conference organizers also express their appreciation to the many volunteers who contributed to the conference by helping with logistics.

Highlights of the Conference

The 1996 conference, held November 7-9, 1996 at the University of Utah - Salt Lake City, Utah attracted 350 participants from around the world (including Germany, Mexico and Canada). The following are a few highlights from the conference:

- To the delight of most participants, snow blanketed the ground the first evening, only to be followed by sunny Utah weather from there on out.
- Hiking trails within 5 minutes of the University which were great for quick morning runs or for use in workshops like Leave No Trace.
- A large vendor display area which let participants access many great resources.
- An evening social hosted by the National Outdoor Leadership School (NOLS).
- A new system for holding and advertising impromptu sessions.
- An auction to support the American Whitewater Affiliation.
- Talk about the AORE "goings-on" - Web page, conference in Mexico, institution directory, board elections.
- The award of the Jim Rennie Leadership Award to Dave Secunda and the award of the Bill March Student Achievement award to Russell Parks.

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A Letter from the AORE President

I Remember....

I remember attending the first ICORE conference in 1984 in Bozeman, Montana. It was a dynamic conference filled with issues, debates, and committed individuals who were charged with making a difference in outdoor recreation and education. I attended a knots, anchors and ropes system workshop given by Bill March. It was the first time I learned the munter hitch! I remember Kelly Cain serving on a panel of outdoor leaders discussing and defending WEA from the "hot" topic of Certification. Tom Whittaker (Coordinator of the C.W. Hog program at Idaho State University, at that time) was advocating for integration and inclusion for individuals with disabilities into outdoor programs. I remember seeing people with disabilities in the hallways and in sessions supporting Tom's efforts. I remember meeting Ron Watters for the first time through our mutual friend Jim Rennie. I recall seeing and hearing about Jim Rogers because he was running an outdoor program in Illinois, which is where I grew up. At the time, I didn't know Illinois offered much in terms of outdoor recreation. I also remember Gary Grimm (one of the founders of cooperative adventures along with John Miles and H. Hilbert) showing a multi-media slide presentation as one of the evening highlights. The conference initially met every other year and was sponsored by a University Outdoor Program in the western part of the country.

Changing Times and Perceptions

And that was only 12 years ago! Our perceptions and our times have changed. I now realize that Illinois State offers many outdoor recreation opportunities! Also, as you now know, the conference meets annually, alternating between west, midwest and eastern parts of the country.

Another change is that there are many more women involved in outdoor recreation than ever before. I do not recall any women presenters at the 1984 conference. The first woman I recall presenting was Ann Bancroft, keynote presenter at the 1988 conference in Ft. Collins, Colorado. Thanks to the Denise Mittens, Karla Hendersons, Shari Kearneys, Lucy Smiths of the world, along with many others who have provided the role modeling and mentoring which allows other women to follow in step.

Finally, I'm proud to say that two of the three founders (Ron Watters and Jim Rogers) of the ICORE conference are still active members and committed to the growth and worth of this conference. I trust if Jim Rennie was with us today, he too would be an active contributor and cheering our efforts.

Back to the Basics

The theme for this year's ICORE conference is "Back to the Basics." ICORE provides a wonderful forum for renewing old friendships and establishing new ones, and learning different and often times better ways to educate others about leadership and the outdoors. It offers opportunity for creating a network for exchanging ideas and discussing solutions to problems / issues related to the outdoor industry.

HOWEVER, most of all, ICORE reminds us of the "Basic" reason WHY we are in this profession and WHAT got us here in the first place. Everyone has his / her own story but I would venture to say that the common denominator to WHAT got you where you are today involves people who taught you a new skill, expanded your thinking, gave you encouragement, challenged you in new ways, introduced you to someone, and gave you an opportunity. As to the WHY...well, I don't think it is too complex to say that we are simply committed to and enjoy what we do! As to the words of Royal Robins.... "Do what you love doing and everything else will follow."

WELCOME to 10th ICORE! Enjoy the conference, Salt Lake City and the University of Utah!

Rena Koesler
AORE President

A BRIEF HISTORY OF THE CONFERENCE

1984: **Bozeman, Montana**. Sponsored and organized by university outdoor programs from Montana, Idaho and Illinois, this was the first national conference devoted solely to non-profit outdoor recreation and education providers. Buzzing with energy and excitement, this early gathering, simply called the Conference on Outdoor Recreation, reflected the passions of nascent field. It was enlightening and inspiring as much as it was delightfully contentious and unruly, as was the case during a heated and animated panel discussion on certification. Always there was the feeling of camaraderie and optimism that outdoor programs finally had come upon a vehicle to share common interests and concerns. 185 participants.

1986: **Davis, California**. Energized and committed to the early foundation set by the Bozeman conference, several universities from California organized the second national outdoor gathering. The Davis conference added new dimensions, including a sobering dramatization of the court proceedings of an outdoor liability case. It was also marked with lightheartedness. At one evening program, the field of outdoor education was parodied by an ab lib comedy troupe. The conference name evolved to: National Conference on Outdoor Recreation. 274 participants.

1988: **Fort Collins, Colorado.** Colorado State University continued the now emerging conference pattern. Remarkably, the Colorado conference, like the two previous conferences was not managed and supervised by an association as are most other conferences. It was organized in manner of a true common adventure, solely by cooperation and volunteer effort. In Fort Collins, as the other conferences, participants debated the formation of an association, but on the whole, they simply wanted to network and work together cooperatively, unencumbered by the control of an outside authority. 304 participants.

1990: **Boone, North Carolina**. The first eastern conference was held in the beautiful Broyhill Inn and Convention Center on the hilly, forested slopes of the campus at Appalachian State University. At the Appalachian, the Association of Experience Education made a strong push to assimilate the National Outdoor Recreation Conference into their organization, but conference attendees once again demonstrated their inclination towards independence and declined the overture. 303 participants.

1991: **Moscow, Idaho**. Returning to the west at the University of Idaho, the conference went through another name change. From its inception the conference had attracted a strong contingent from Canada, and it now became known as the International Conference on Outdoor Recreation. 151 participants.

1992: **Calgary, Alberta**. Living up to its new moniker, the conference headed north of the border and truly became international in scope. At the University of Calgary, conference participants could unwind after a busy day by bouldering on a climbing wall which, to everyone's amazement, was most conveniently located in the Outdoor Program Centre's office. Other participants unwound more unconventionally by taking a wild run down the Olympic Luge course. 359 participants.

1993: **Corvalis, Oregon.** After nearly 10 years of debate about the "A" word, the big step was taken at Oregon State University. The Association of Outdoor Recreation and Education was created by conference participants and became organized under the auspices of The Outdoor Recreation Coalition of America (ORCA). The conference name went through one final change becoming the International Conference on Outdoor Recreation and Education. 166 participants.

1994: **Colorado Springs, Colorado**. For the first time, the conference was hosted by a branch of the United States Armed Forces, the US Army Community and Family Support Center. Attendees came from throughout the world and enjoyed one of the most memorable social gatherings of any of the conferences: a barbecue and hoedown held at the Fort Carson Army Base in a huge tent, which, when the music started, quickly filled with the dust rising off dozens of stomping feet. 320 participants.

1995: **Ithaca, New York.** Cornell University hosted the conference and decorated the Alberding field house with live pine trees. Rising above the Alberding forest was the Linseth Climbing wall which was available throughout the conference for climbing. Presenting at the conference were some distinguished founders of the modern outdoor recreation movement including Paul Petzold, Josh Miner and Royal Robbins. 319 participants.

1996: **Salt Lake City, Utah**. Welcome to the 10th International Conference on Outdoor Recreation and Education here at the University of Utah!

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Out of our Corsets and into the Woods: A fun look at the History of Women Adventurers

Presenter **Denise Mitten**, Director
Adventure Learning Center at Eagle Village
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For the past 25 years, Denise Mitten has worked in adventure, experiential, outdoor, and environmental education. She has had opportunities to work with women, women convicted of felonies, women survivors of sexual abuse, nuns in emotional recovery, homeless people, men, and youth from a variety of ethnic and social backgrounds. Ms. Mitten brings a comparative perspective regarding the value and uses of various leadership and motivation styles with many different groups.

For ten years, Ms. Mitten was the Executive Director of Woodswomen, Inc., an organization offering a variety of adventure travel experiences for women. Ms. Mitten now works as the director of the Adventure Learning Center at Eagle Village. Ms. Mitten is widely respected as one of the leaders in experiential education in the area of leadership development. She developed and refined Woodswomen's acclaimed leadership training program both through Woodswomen programs and as a faculty member at Metropolitan State University in St. Paul, Minnesota. This leadership program focuses on both ethical and inclusive leadership. Ms. Mitten has led leadership workshops throughout the country and in Europe, New Zealand, and Australia. She has contributed numerous articles and book chapters to many publications in the field of experiential education and leadership.

Ms. Mitten is one of the most widely experienced adventure guides in the business. She has led climbs on Mt. McKinley, in the Swiss Alps, and in the Himalayas as well as up volcanoes in the Northwest U.S. She has guided raft and kayak trips down the Colorado, Green, and Rio Grand rivers and taught rock climbing in California, Washington, Colorado, and the Midwest. She has also taught skiing in Colorado and Minnesota, taught and raced whitewater canoeing, and led bicycle trips in Europe, New Zealand, and the U.S. Ms. Mitten has SCUBA dived in the Caribbean, New Zealand, Hawaii, and the Galapagos Islands.

ABSTRACT

This presentation is a well-researched, informal, yet professional look at women adventurers from the late 1800s to the present. Women from France, Wales, England, Scottland, and the United States are highlighted. These adventurers went canoeing, rafting, climbing, and mountaineering all over the world. This inspirational/motivational presentation provides education and fun simultaneously. Women highlighted include indigenous women and physically challenged women as well as women from a variety of economic class backgrounds.

PRESENTATION DESCRIPTION

A slide show was used by the presenter to highlight about 20 women adventures. I discussed who we hear about and why. For example, many women adventurers in the early years were Victorian lady travelers who had enough money to travel. Isabella Bird Bishop and Fanny Bullock Workman are examples. They both traveled in many parts of the world considered, at the time, very remote and inhospitable.

I explored what motivates some adventuring women. Some adventurers, such as Annie Peck Smith (mountaineer), Collette Richards (mountaineer and caver), Gwen Moffit (climber and mountaineer), and Alexandria David Neil (explorer in Tibet) were motivated by a deep commitment and urge to be physically climbing and/or exploring the specific areas in which they

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traveled. These women did not necessarily have the financial resources some other women did and worked hard to fund their explorations.

Some women were motivated by grief and healing. Mina Benson Hubbard's husband, Laddie, died while mapping the George River in Labrador. Mina scraped up the finances to travel from England to Labrador to both finish his work and heal from her loss. Georgie Clark White traveled the United States in the 1940s after her daughter was killed in a bicycling accident. Georgie ended her travels at the Grand Canyon. After swimming the canyon (125 miles) she settled there and was the first person to start modern-day rafting trip using Army surplus rubber rafts.

Audrey Sutherland (ocean swimmer and sea kayaker) is motivated by mid-life longings to be outside with nature. Mirium Underhill (climber and mountaineer) loved to mountaineer and did so as was appropriate for the times, with her husband and his friend. She had a longing to be the first climber on a summit which motivated her to start a sport named in 1918 which was called "manless climbing." Climbing manless was the only way women of that period could be the first in their group to summit.

We do not hear as much about native women or women involved in subsistence living. These women, in a sense, are living outdoor adventure and should be remembered. Often we do not hear about physically challenged women adventuring. Collette Richards, blind at the age of two, happened to write about her mountaineering and caving adventures in a book called Climbing Blind.

Women had imaginative ways to have adventures. Some women were missionaries, other scholars, some teachers, homesteaders, researchers, and even "willing captives" of Native Americans. We hear about these women mostly from their self-reporting in journals and books. Many of the books were written 20 or 30 years after their adventuring time. Some women were encouraged by their families (children and grandchildren to write).

I discussed how these women approached adventures. From the books the women wrote, it is clear that meeting and learning about the native people in the areas in which the women traveled was important to these women. The women talk about their encounters with native people in positive and realistic ways. The women are respectful of the native people and aware of their impact, as foreigners, on the native people as well as the environment. Betty Stark, Monica Jackson, and Evelyn Camrass were the first western women to embark on a climbing expedition in Nepal in 1953. There book is full of stories about their rich encounters with the Nepalese.

Women seemed to adventure and be outdoors because of a connection or want of a connection with nature. Rarely do these women use language that implies "conquering" nature or being in an adversary position with nature. Even Constance Helmericks who homesteaded in Alaska in the 1940s and had to return to the lower 48 when they were unable to provide enough food for themselves, returned years later to Alaska. She brought her two teenage children with her in order to share with them the beauty and wonderfulness of the land. She and the girls went on a canoe trip down the Peace, Slave, and MacKenzie Rivers over the course of two summers. Most women tended to under play the danger and risk part of their adventures while simultaneously revealing their humanness. For example, they would show picture of themselves being pulled from a crevasse—not to say that they were doing a death-defying adventure, but rather to say "oh, I am so clumsy." When Georgie Clark White became her rafting company (River Rats) that offered trips down the Grand Canyon, she marketed to and welcomed families and especially women and children. She was dedicated to not portraying the river as mean or the trip as something that only the extremely hardy could do.

I also gave examples of comparable women and men's trips with the goal of shedding light, from my research on possible gender differences in how men and women approach outdoor adventure travel. Mina Hubbard and Dillan Wallace

both did expeditions on the George River in the same season. Both wrote books about their experience. In reading these two books, one can see their different perspectives on nature, native people, and adventuring style.

I hope that people in the audience came away with a greater understanding of their own needs and desires regarding adventures and perhaps a sense of camaraderie with women adventures of yester-years. Members of the audience had the opportunity to gain fun historical knowledge as well as to gain some knowledge of travel safety tips.

BIBLIOGRAPHY

These are a few of my favorite books. Many interesting books about outdoor women are published by small presses and may be long out of print. Some are available only in large libraries. Also, Woodswomen sells a longer bibliography about outdoor women ($5.50) as well as a bibliography specifically about women mountaineers ($2.50). Contact them at 25 West Diamond Lake Road, Minneapolis, MN 55419.

CONTEMPORARY ADVENTURES

Blum, Arlene. *Annapurna: A Woman's Place*, Sierra Club, 1980; paperback, 1983. American women's 1978 expedition to Annapurna, showing both the climbing and how the women felt. Good bibliography. ($16.00)

Davidson, Robyn. *Tracks*, Pantheon, 1980; paperback, 1983. RD, with little previous outdoor experience, crossed the outback of Australia with camels. A lively, outspoken book, which tells about her motives and feelings.

Galland, China. *Women in the Wilderness*, Harper Colophon, 1980. A first survey of the subject, including trip accounts, some history, political, spiritual and ideological questions, a directory of women's programs, some bibliographies. (out of print)

Helmericks, Constance. *Down the Wild River North*, Little Brown, 1968. An experienced outdoorswoman takes her daughters, ages 12 and 14, down the Peace, Slave, and MacKenzie Rivers over two summers, by canoe. How the girls grew up, what they learned. ($8.95)

Jackson, Monica and Elizabeth Stark. *Tents in the Clouds: The First Women's Himalayan Expedition*, Collins, London, 1956. Three Scottish women, with sherpas, exploring an unknown section of the Himalayas in 1955. A very modest and entertaining account of an impressive venture. (out of print, I-L loan, Hamilton College, Clinton, NY)

Kerfoot, Justine. *Woman of the Boundary Waters*, Women's Times Publ., Grand Marais, MN, 1986. Five decades of life on the Gunflint Trail, Minnesota-Ontario border, canoeing, mushing, guiding and running a resort. ($14.95)

Richard, Collete. *Climbing Blind*, translated by Norman Dall, E.P. Dutton, New York, NY, 1967. Inspiring story of a young blind woman who is both a mountaineer and a cave explorer.

Sutherland, Audrey. *Paddling My Own Canoe*, University of Hawaii Press, Honolulu, 1978. Sutherland writes of her many journeys to the wild north coast of Moloka'i, swimming, towing a pack, or in a nine-foot inflatable canoe, always alone. ($7.95)

A FEW GENERATIONS BACK

Arnold, Mary Ellicott and Mabel Reed. *In the Land of the Grasshopper Song*, University of Nebraska Press, Lincoln, 1957. Two young women living in the

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Klamath Indian country in 1908-09. They loved it and wrote with wit and perception. ($8.95)

Bird, Isabella [Bishop]. *A Lady's Life in the Rocky Mountains*, University of Oklahoma Press, 1960 (c1879). Bird traveled alone on horseback. A semi-invalid at home in Scotland, she thrived on the rambling life.

Frederickson, Olive with Ben East. *The Silence of the North*, 1972 and later, Warner Paperbacks. A young widow with small children living in British Columbia in the 1930's. (1981 movie with Ellen Burstyn)

Hubbard, Mina Benson. *A Woman's Way through Unknown Labrador*, 1908; reissued Breakwater Books, Newfoundland, 1982; paperback 1984. Hubbard with four Indian guides explored the Ungava peninsula, Labrador, by canoe, after her husband had died in an earlier attempt. She loved the trip. (out-of-print)

Martin, Martha. *O Rugged Land of Gold*, MacMillan, NY, 1953. Journal of a winter surviving alone in an Alaskan cabin, setting her own broken bones, giving birth, caring for animals.

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PRACTICAL APPROACHES FOR TEACHING LEAVE NO TRACE

By

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Abstract

This paper lists and discusses a variety of approaches for presenting and teaching Leave No Trace practices and techniques.

Introduction

According to a recent survey (Outdoor Recreation Coalition of America, 1995), participation in outdoor recreation continues to grow. Tent camping (12% growth in 1994), backpacking (11% growth in 1994) nordic skiing (the second fastest growing sport in the nation), mountain biking (20% growth annually) and mountain and rock climbing (a 32% increase in a single year)are examples of some of the more popular activities. These activities are unique since they require a specific natural resource in order to be conducted. As more and more of our population visit these natural areas, greater and greater demands are placed on the resource, resulting in a variety of environmental and social impacts. Impacts can compromise the objectives of preserving the naturalness of an area, thus making the area less appealing and attractive to the visitor (Hammitt & Cole, 1987). According to researchers (Hendee, Stankey and Lucas, 1990) many of the impacts visible in our natural areas are caused through illegal, careless, unskilled, or uninformed actions, or are simply unavoidable.

To address these problems, land managers have incorporated a variety of direct and indirect management techniques. Of these techniques, indirect management techniques are the most desirable, since these tend to modify behavior, rather than control it (Dustin & McAvoy, 1983). One of the most effective indirect management techniques, education has been identified as a successful method for reducing the impact of recreational activities on natural environments (Roggenbuck & Ham, 1986).

Education is a desirable management tool because it is non-authoritarian, serves the visitor's desires, favors a "light handed" approach, and stresses modification of behavior while maintaining individual choice (Hendee, et al., 1990). For education programs to be effective they must be well organized and contain a variety of communication techniques (Kascenska, 1987). Roggenbuck and Ham (1986) highlight several important factors to consider when developing effective education programs:

> Programs become feasible and effective when managers are able to identify clientele groups and their characteristics, place information where people can easily receive it, provide information early in the decision making process, and present the information in an interesting and understandable way (p. Management-62).

Educational programs developed to reduce resource impacts can be traced back to the 1960s when recreation on our nation's wildlands began to flourish. During this era the National Outdoor Leadership School (NOLS) developed a formal "low impact" education program. Also during this decade federal land management agencies began promoting the "pack-it-in, pack-it-out" slogan to help reduce litter in the backcountry (Doucette & Cole, 1993). During the 1970s a minimum-impact backcountry educational program, Leave No Trace (LNT)was initiated to educate wilderness visitors on the responsible use of wildlands. However, a lack of funding limited the extent and scope of LNT.

Today this program has been revitalized by NOLS, six federal agencies, and members of the outdoor products industry (NOLS, 1993).

Leave No Trace is based on six principles applicable to a variety of natural settings (NOLS, 1993):

1. Plan ahead and prepare.
2. Camp and travel on durable surfaces.
3. Pack it in, Pack it out
4. Properly dispose of what you can't pack out.
5. Leave what you find.
6. Minimize use of fires.

Outdoor educators are in a unique position to convey information and teach the skills necessary to communicate and reinforce LNT principles through a variety of strategies. This paper explores some of the opportunities for teaching LNT.

Principles of Educating for LNT

According to Braithwaite (1990), a number of factors should be considered when developing effective methods for introducing topics associated with wilderness education.

1. *Education programs should be guided by specific objectives.* This includes targeting specific groups and the problems caused by these groups.
2. *Information being shared should be consistent and presented in a clear, and concise manner.* Keep the information simple and avoid overloading participants with too much information, especially in backcountry areas. Information overload in this environment may detract from the recreational experience, since some participants may be seeking solitude and avoiding distractions.
3. *Information should be presented during the initial stage or planning stage of the recreational experience.* This allows participants the opportunity and the willingness to consider any information presented, ask questions, meet equipment needs, and make adjustments to itineraries.
4. *Consider using a combination of techniques to present LNT materials.* By combining techniques, messages can be repeated, thus reinforcing previous material and keeping one's interest.
5. *The material being discussed or introduced should be presented in a professional manner.* This factor is important in maintaining credibility and respect. Information should be up to date, accurate and easy for participants to understand.
6. *Instructors must be well trained and personable.* The characteristics of a good teacher come into play: a positive attitude, is a good communicator, is highly motivated, has good methodology skills, and knows the material being presented.
7. *Instructors must be committed.* Instructors should be committed to LNT principles and practices. In addition, they should believe in the importance of education as an important step in achieving the goals and objectives of LNT.
8. *Creativity is an important approach to educating participants about LNT.* New and innovative approaches for teaching LNT can be beneficial to both instructor and student. New information and materials can help reinforce material previously taught and will keep instructors from becoming bored by teaching the same material in the "same old way".

Teaching Leave No Trace

The following section introduces a variety of practical approaches for teaching LNT principles. These approaches include: Role Modeling, Teachable Moments, Values Clarification, Service, and Current Events.

Role Modeling

Role modeling has been shown to be an effective method for changing resource use behavior, especially in river environments, backpacking areas,

and campgrounds (Cockrell, Bange & Roggenbuck, 1984; Oliver, Roggenbuck & Watson, 1985; Wagstaff & Wilson, 1987). Guides and outdoor leaders exhibiting technical knowledge, expertise, and competence are usually held in high regard by participants. It is important for role models to "walk the talk". Students usually look for this consistency in a individual. If an instructor expects students to follow a particular practice, then the instructor needs to follow it as well. Lead through example and avoid double standards. Once students see and understand the information being presented and practiced, they may change their patterns of behavior (Wagar, 1976).

Teachable Moments

According to Drury & Bonney (1992) a teachable moment is defined as a "lesson presented spontaneously and inspired by specific situations or events encountered during the day" (pg. 130). These events can be used to teach LNT principles and encourage discussions on controversial topics or reinforce material previously presented in the classroom. For example you and your group come face to face with a couple of climbers placing bolts with a power drill in a Wilderness area. A discussion might insue on the issues of power drills and bolting practices in wilderness (they're both prohibited, the impact this encounter had on your Wilderness experience and the environmental damage that can result through these illegal practices.

Values Clarification

Values clarification is a theory that helps people define their values and can be used effectively to teach LNT practices (Attarian, 1996). If a person is successful in clarifying their values then change in behavior will result (Raths, Harmin, &Simon, 1978).Values clarification is based on a model that takes into consideration the three levels of teaching: Facts, concepts, and values (Table 1.). During the fact level the instructor presents specific information on details, events, facts, and the instruction of basic skills. During the concept level, principle supporting the facts are explored, generalizations are drawn from the facts, and if skills are involved, more advanced skills are introduced. At the value level (often overlooked) the material presented is integrated into the student's life by encouraging the student to think, feel, and act on their attitude and experience (Raths, et al., 1978). For values clarification to be successful Instructors should stimulate students to respond honestly to value forming questions by asking "you" questions. For example "How do *you* feel about the use of mountain bikes in Wilderness areas?

Service

Conducting service projects can be an important medium for reinforcing the techniques and practices of LNT and giving something back to the environment. Students who have seen firsthand the damage caused by improper camping and traveling practices may be compelled to do something about it. Service to the environment through trail maintenance and campsite revegetation projects, stream clean-ups, adopt a highway and park programs are ways of getting students actively involved with local organizations and give them an opportunity to interact with land managers and others with similar interests.

Current Events

Current events, especially those related to natural resource issues can be woven into any outdoor activity, LNT, or leadership course to provide information for interesting and thought provoking discussions that can help instructors reinforce classroom discussions. Topics might center around controversial logging efforts (Leavenworth, 1996) or national park closings (ORCA, 1996), and the impact these events have on the recreation experience, the environment and society as a whole.

Conclusion

As outdoor educators we have the ability to effect change in our students. By "teaching through the mountains and not for them" (Miner, 1964) we can help our students grow in confidence and experience but also give them a chance to explore and shape their attitudes and behaviors towards the environment. Creative and innovative approaches to teaching LNT combined with a discussion or unit on resource management should be the foundation of an outdoor program. Through this process students can begin to develop "an initial sensitivity toward the environment, the first and essential step on the path toward increased understanding of environmental processes, increased understanding of our place in, and dependence upon, the ecosystem, and . . . to action on behalf of the environment" (Ford and Blanchard, 1993 p.54).

Table 1. Teaching Leave No Trace Through a Three Level Approach

FACT LEVEL

LNT is based on six principles:

1. Plan ahead and prepare.
2. Camp and travel on durable surfaces.
3. Pack it in, pack it out
4. Properly dispose of what you can't pack out.
5. Leave what you find.
6. Minimize the use of fire.

CONCEPT LEVEL

1. In what ways can pre-trip planning help reduce environmental impact?
2. Why are high-impact campsite the best choice for camping with large groups?
3. Why is Pack it in, pack it out a good practice to follow?
4. Demonstrate the construction of a "cathole".
5. Explain "take only pictures, leave only footprints".
6. Demonstrate the use of a firepan.

VALUE LEVEL

1. What does the LNT ethic mean to you?
2. In what ways can this ethic be practiced in your everyday life?
3. Is Wilderness important to you? To society? And why?
4. Do you think a quota system is important for reducing impacts to backcountry areas? Explain your answer.
5. What are your concerns about the management of backcountry areas?

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WOMEN IN THE WILDERNESS

Theme-Based Outdoor Programming at the University of Florida

by: Cheryl Berger & Christy Vollbracht

INTRODUCTION

The Women in the Wilderness program at the University of Florida began this fall with tremendous support from UF's students. The program has been an overwhelming success, and in this report we will outline some of the factors which have caused the Women in the Wilderness program to be so well received. We will also offer some suggestions about how outdoor educators at the university level can build a similar program. This type of programming has the potential to affect the lives of students, more so than through standard outdoor experiences. We hope to see more students and outdoor programs working together to shape positive experiences through theme-based programming.

BACKGROUND

The Women in the Wilderness program began over a year ago with a suggestion from a female trip leader in UF's Travel and Recreation Program (TRiP). Through her experiences, she felt that women and men seemed to approach their outdoor experiences differently, with women (in general) being more supportive and men (in general) being more competitive. Because of these different approaches, women tended to group themselves together during some outdoor activities, encouraging each other as they enjoyed both their individual and group experience. Would women get more from the experience if the trip was made up entirely of women?

In the early stages of the program's inception, while we were still considering its possible benefits, we asked some female participants if they

thought they would get more out of a program designed only for women. The positive response was overwhelming. Convinced that the program had real potential and support, we proposed our program to the administration. Our program proposal was denied based on the possibility of discrimination accusations.

Our discussion with the administration continued for nearly a year, until we realized that we had to be more clear about our objective and reasons for designing a women's only program. We decided to involve other campus organizations dedicated to supporting women. We also offered counterpart trips on the regular Travel and Recreation Program schedule so that any student had access to the trips we were offering to women. These changes were enough to convince the administration to allow the program on a trial basis in the fall 1996 semester.

PROGRAM OBJECTIVES

We worked to create a statement of purpose which emphasized that women were not the only students who would benefit from the program. We suggested that the program held value for the greater university community:

> The Women in the Wilderness program is designed to empower women by enhancing confidence, leadership, and environmental and self awareness. This will be accomplished through participation in challenging adventure activities and group discussion. We believe that women who posses these qualities are more prepared to affect changes which will improve both the quality of their own lives as well as the lives of those around them.

In order to fulfill the objectives which we set forth, we proposed that the program be conducted in the format of an extended conference. The one-semester conference would be set in the outdoors with each of three sessions having its own theme. The themes were to relate to both a particular women's issue and to the outdoor activity scheduled for the session. By extending the experience in this way, we hoped to offer more time for reflection and more opportunities to share ideas with different groups. We also hoped that by setting the conference in the outdoors, we could create an informal and supportive atmosphere where participants could share ideas freely.

Because the program was conceived and started by trip leaders from the Travel and Recreation Program, TRiP became the parenting organization. We invited the following campus groups to be involved in the program:

- Women's Affairs Cabinet
- Women's Studies Student Association
- Center for Sexual Assault/Abuse Recovery and Education

These groups, or sponsoring organizations, were responsible for the following:

- Promoting the program to their members and the women with whom they work.
- Donating necessary materials, i.e. literature, equipment.
- Providing expertise in their respective areas, both throughout the planning stages and during the program by sending a representative to become part of the Women in the Wilderness staff.

PROGRAM FORMAT

In keeping with our conference format, we held an informal dinner two weeks after registration began. This meeting was designed to accomplish the following:

1. Provide a forum for discussion about both the participants' and the staff's expectations for the program.
2. Inspire enthusiasm about the program through the presentation of an inspirational speaker.
3. Create an atmosphere in which participants would feel comfortable with each other before going on their outing.

Participants were given a T-shirt bearing the program's theme for the year, "Defining ourselves, redefining the world," at the opening dinner as well as a folder which contained general information of interest to women on the University of Florida's campus. Each folder would be added to as the program proceeded, with each individual trip providing information pertinent to their topic.

Three trips were scheduled for the fall semester. First, "Me and my mother: Ecofeminism and women's role in the family," a rock climbing trip to Sand Rock, Alabama. Trip participants would discuss the relationships between women, family, and nature. Next, "The long ride: A woman in a man's world," a mountain biking trip to Tsali, North Carolina. Discussion would center around issues such as sexual harassment, horizontal aggression, and academic success. The last trip, "Untying the knots: Developing positive self-awareness," was a ropes course in Jacksonville, Florida. The group would explore issues such as body acceptance and self-concept.

Staff members, two women leaders from the Travel and Recreation Program and one from a sponsor organization, were encouraged to explore their topics through group discussion, individual discussion, and games. In addition, they were asked to collect information which was not only pertinent to their topic, but which would also inspire understanding and thought about that topic before participants met for their trip. In order for staff members to feel more comfortable with each other and their trip topic, we developed a short staff training program to compliment the standard training trip leaders in the TRiP program receive. Women in the Wilderness training involved both a staff visit to the counseling center in order to discuss some of the issues facing women and gain facilitation skills, and a retreat, which provided time to plan for individual trips while bringing the staff together in the outdoors.

To close the program, a picnic at a local lake-side recreation area has been scheduled. At that time, all of the groups will be reunited in order to share their experiences and report to the larger group some of the conclusions they reached during their trip. Of special interest is the way in which the outdoor activity related to or inspired feelings about their topic. The participants will also be asked to evaluate the program both in discussion and in a written questionnaire at the final meeting.

THEME-BASED OUTDOOR PROGRAMMING

The value of theme-based programming is that it can be used to address any particular issue on a University campus. The outdoors provides an excellent setting for bringing any group of people together to discuss an issue in an informal, supportive, often inspirational setting. The topic and format will be shaped by the campus's needs, the staff's objectives, and the participants' goals. For many campuses, this will mean the creation of some

type of program which addresses issues facing women. As outdoor educators, we need to recognize the role we can play as facilitators of a new awareness for women. The schedule for the 10th I.C.O.R.E. attests to that. However, the theme on which you base your outdoor program can be developed around any group on your campus.

The following are suggestions for beginning a theme-based program from the session handout entitled "Theme-Based Outdoor Programming Inspired by Women in the Wilderness at the University of Florida Travel and Recreation Program (TRiP)":

- ***DEFINE YOUR OBJECTIVES***

Clearly stating your goals from the start will not only increase the administration's understanding of your program, but it will also help you keep focused throughout the planning and implementation of your program. Consider the problem you think needs to be addressed and why, and also why addressing it in the outdoors offers an advantage.

- ***SELECT YOUR FORMAT***

In selecting your format, you will have to consider a number of factors. How long do you have? How many staff people do you have? What are the interests and skill levels of your participants? While you are thinking about these issues, also consider how certain activities by their nature may help move you towards your goal. If, for example, you want to stress teamwork, you will want to select an activity where the group can stay together.

- ***PREPARE YOUR STAFF***

Your staff is the most critical part of your program because they will not only be planning the activities, but their excitement and knowledge will create the experience for the participants. The staff should not only be experienced in outdoor leadership, but should also have a good understanding of the topics which you plan to cover. A well-trained staff will be confident about the program topic, able to facilitate discussion about the topic, and will be excited to share their knowledge. Finding this staff may require looking outside of your outdoor program for qualified, excited, knowledgeable individuals who are willing to invest a good amount of time. Look to campus organizations which specialize in your topic area.

- ***GET THE WORD OUT***

Appropriate publicity can determine the success of your program, and not just because it determines whether or not people sign up. Good publicity will attract the kind of participants who will get the most from your program and have the most to give back. Your publicity should be clear in stating that you are not just offering another set of trips. Being clear from the outset will avoid confusion or disappointment of poorly informed participants.

- ***MEET YOUR PARTICIPANTS***

Get to know your participants before the trip. A questionnaire can be a great tool for learning about participants' backgrounds and what they expect from the program. This will help you tailor the program to fit their needs and yours.

- ***PROVIDE INFORMATION***

In addition to providing group discussion and structured activities, you can add value to your program by collecting information about your topic and organizing it for participants. You may want to direct them to web sites or bibliographies, or you could collect and copy the information. This can give participants time to think about the topic before their trip, or you can give it out after the trip as a way to encourage further thought and interest in the topic.

- ***PROVIDE CLOSURE***

As with any good group outdoor experience, processing the experience is key. Throughout the trips and at the end of the program (if you offer more than one trip), discussions to process information and reach conclusions can be valuable. A gathering to bring all of your participants together at the end of the program can be fun and allow time for reflection and comparison of the different groups' experiences.

- ***KEEP FLEXIBLE***

This rule is familiar to any outdoor activity planner. There are so many things which can change at the last minute that it is virtually impossible to run the same program which you planned. That's OK if you are ready to make last-minute changes and your group understands that changes are to be expected. Although your plans might change, your objectives should not. If everyone is clear about why you have come together, you will have a great experience regardless of the changes you may need to make.

- ***HAVE FUN***

This common-sense rule is easy to forget if you get caught up in programming activities and teaching lessons. Again, like any good program, this requires a balance between having fun in the outdoors and working towards a goal of increased awareness. Find fun ways to share information and feelings. Everything doesn't have to be a long campfire discussion, although they definitely have their place. Play!

LOOKING BACK

With all the detailed planning that occurred before our program began this past fall, it is interesting to look back and reflect on what actually happened. Were the trips a success, did we meet our objectives?

Our biggest success comes in getting thirty-three women involved in an outdoor adventure activity. However, it was important to accommodate the huge range of ability levels within each group. By having three leaders on each trip, we were better able to manage the range in ability and offer three different levels in which to participate. In creating this environment, we were able to make these trips less competitive and more supportive.

The most challenging part in evaluating our program is that each trip was so completely different from the others. The makeup of each group makes it impossible to generalize about what will actually happen on a theme-based trip. Our biggest concern is how to better improve the theme discussion on the trip. Because the trips were female-only, conversation automatically turned towards women's issues. It was often hard to direct the participants into conversation directly related to their unique theme. Most discussions

tended to revolve around being a woman in today's world. Women on our trips wanted to talk about being women, which encompasses all three program topics. In evaluating this part of the program, it may be more effective to give all three trips a broad-based theme, and allow each group to decide how they want to direct conversation within that theme.

We think it is also important to be innovative within the program. During the spring semester we will be trying a different way to encourage women to participate in the outdoors. Instead of offering three weekend trips, as we did in the fall, we are offering one week-long trip during spring break. These women will be able to participate in whitewater rafting, mountain bike riding, and rockclimbing. The theme will again relate to the activities and a chosen topic. It will be interesting to compare experiences between the weekend and week-long trips. We hope this comparison will help us better develop the program to fit the needs of University of Florida women.

"BBM Approach to Outdoor Recreation Programming"

by Bob Brookover & Rick Harwell, Clemson University

Abstract

This article explains the process to implementing "Benefits Based Management" (BBM) approach to outdoor recreation programming. Each of the three phases are explained along with the steps to evaluation. In addition programming principles and processing are outlined. BBM is a techniques focused on "outcomes" and "benefits" derived from participating in outdoor recreation activities.

Introduction

In order to determine the significance of outdoor programs on campuses and what role it plays on campuses, which is considered important by administration, consider BBM. Other entities on campus have established their significance, what is the outdoor programs'?

BBM-Premise

The first premise of Benefits-Based Management of Recreation Services is the articulation of outcome oriented goals that address issues and concerns that are viewed as significant. The second premise of BBM is that outdoor recreation opportunities need to be structured to directly address the stated goals and we should not assume what we are presently doing is necessarily the best approach to program provision. Third, to establish a comprehensive monitoring and assessment procedure which allows us to document goal achievement and the ensuing benefits to the individual and beyond. Last, is the establishment of a comprehensive marketing effort that effectively communicates the significance of the programs and services offered by outdoor recreation service providers.

Recreation Demand Hierarchy

Below in Figure 1, you notice that participation in a white water rafting trip can lead to immediate beneficial experiences as well as benefits in later life. Again, recreation provides benefits now and in later life for all participants.

[Figure 1]

Advantages of BBM•

There are several advantages to implementing the BBM approach to recreation programming as outlined below:

BBM provides clear justification to officials for allocation of funds for outdoor recreation

BBM allows comparison of the benefits and costs of alternative uses of university funds

BBM allows documentation of long term benefits in terms understandable by university officials

Shifts management focus from means to results or outcomes of services

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Encourages programmers and supervisors to develop clear performance objectives that are measurable and identify clear outcomes of services.

Focus on results leads to more meaningful evaluation of services and staff performance

Facilitates more meaningful understanding of demand for outdoor recreation

Participants can communicate interests in recreation from the benefits they want to receive

Makes the participant a more informed consumer

Participant has better understanding of the potential benefits of various outdoor recreation opportunities; thus can make more informed decisions

Participants become more informed supporters

Enhance rationality for fee structure

Helps determine the extent of benefits to the participant and the university; thus assist in determining appropriate fee structure based upon individual vs university good

Facilitates marketing

Makes the outcomes of outdoor recreation participation very explicit in terms of benefits; these benefits can be clearly presented to participants in a positive message

Clarifies value of recreation beyond simple revenues generated

Identifies larger economic benefits to the university in terms of cost savings and individual productivity increases

Advances the recreation profession

Allows professionals to articulate the significance of our profession in terms that place us on a par with other human service professions

Provides clearer justification for our professional training and existence

*Adapted from Driver, B.L. (1994).

Program Principles

In order to implement BBM, several programming principles and definitions must be made clear. There are several key definitions that you may find useful in developing your understanding of the BBM approach. Each of the following must be followed during the implementation of BBM.

Accomplishment: consistently provide opportunities for success.

Encouragement: inspire hope and belief for achievement or success.

High Expectations: communicate belief in success.

Positive Time Use: encourage engagement in activities that provide for enjoyment, learning and growth.

Recognition: provide acknowledgment and reward for success and achievement.

Significant Relationships: provides opportunities for relations that exhibit mutual respect, interest, and reliability.

Support System: promote opportunities to socialize with peers and adults, who share attitudes and values, that provide an atmosphere of consistency and acceptance.

A Three-Phase BBM Program Planning Model

Phase I:	***Benefits and Opportunity Identification:*** Establish Outcome - Oriented Goals
Phase II:	**Implementing and Monitoring:** Restructure Opportunities Provided to Respond to Targeted Goals/Benefits (& not simply assume that all recreation is good)
Phase III:	**Evaluation and Documentation:** Establish a Comprehensive Evaluation System

[Figure 2]

Program Development Guidelines

Overall Guidelines for Program Development

Programs must focus on target issues and significant outcomes

Strategies for assessing outcomes must be established

Program structure must be unique to specific universities, participants and situations

Program structure and content must be developed to directly address proposed outcomes

Programs must be multi-faceted

Leaders must be trained in processing and use these skills

Evaluate, evaluate, evaluate

The overall success of any program is dependent on good activity development. An activity planning checklist is very helpful and program goals and objective should be closely followed when planning all activities.

What do you plan to do and why?
What are the target goals/objectives of the activity?
What program principles will be implemented?
How are activities structured to address target goals/objectives?

Leaders should consider the following factors to insure that goals and objectives are met:

People

Who should be involved in the planning of an the activity?
Who will conduct the activity?
Who will participate?
To whom are we accountable?

Activity

When will it be done?
Is it appropriate for the target participants?
Can participants achieve the stated target goals/objectives of the program through the activity?
Are you implementing program principles?
Can all participants experience success?
Is there opportunity for interaction?
Does the leader know the activity?

Setting

What facilities are needed?
Are they available?
Are they convenient for participants?
Will the surroundings facilitate reaching the target goals?
Are necessary supplies available?
Chances of success increase by anticipating failures. Leaders

should consider what factors may torpedo their programs and develop plans to overcome potential problems.

Understanding Performance Objectives**

Most program goals and objectives are written in terms of benefits or outcomes to be realized by the participant; as a result they are written as performance objectives. Since performance objectives refer to the actual behavior that is to be demonstrated by the participant, they must be stated in terms of what the participant is to know and what he or she is to demonstrate. Performance objectives are written in terms of the behavior that is to be demonstrated by the participant as a result of his or her involvement in a program or service. In addition, most objectives are specific statements that are measurable and have some dimension of time.

Common characteristics of program goals and performance objectives:

a. Specific - clear and concrete
b. Measurable - determine whether or not they were met
c. Pragmatic - attainable and reality based
d. Useful - worth the effort
e. Linked to needs - of the participants and organization

Additional characteristics of performance objectives:

a. Written only to identify and measure the behavioral changes displayed by the participant.
b. The behavior learned by the participant must be observable in order to be measured.

Four factors involved in writing performance objectives:

a. What must be known or done by the participant?
b. How is the participant to demonstrate a specific behavior?
c. What are the factors or conditions that might affect the participant's acquisition and demonstration of a specific behavior?
d. What is the minimum level of acceptable achievement for the participant's performance of a given behavior?

Four steps to and an example of writing performance objectives:

Step 1 - State the performance objective with a verb that defines the accepted behavior:
"The participant *will* demonstrate proficiency in ...."

Step 2 - State the *method* of performance which the participant can demonstrate:
" *paddling* in a straight line for twenty-five yards..."

Step 3 - State those factors which may affect the attainment or achievement of the objective:
"on *flat water* in a lake under calm conditions..."

Step 4 - Indicate in each performance objective how it is to be measured:
"covering the distance in *fifteen minutes or less.*"

An example:

"The participant will demonstrate proficiency in canoeing by paddling in a straight line for twenty-five yards on a lake under calm conditions in fifteen minutes or less."

** Material adapted from:
Leisure Programming: Concepts, Trends, and Professional Practice, by Edgington, C., Hanson C., & Edgington, S. (1989). Wm. C. Brown: Dubuque, IA.

Programming Principles

The following will be helpful, in implementing BBM in outdoor recreation programs:

- Build in opportunities for helpfulness to others.
- Provide opportunity to contribute to one's community/university.
- Provide opportunity to develop a close bond with at least one adult/other who gives needed attention and support.
- Encourage group support and involvement.
- Provide opportunity to feel competent.
- Build in high but attainable expectations; not high standards.
- Teach anger management.
- Include initiative and cooperative (non-competitive) types of activities.
- Provide consistent opportunity for successfully accomplishing tasks.
- Provide opportunity to practice communication skills.
- Provide opportunities to develop skills relevant now and in the future.
- Create opportunities for problem solving
- Provide opportunities for group decision making.
- Allow participants to create experiences.
- Provide encouragement.
- Provide for a high degree of participant involvement and responsibility.
- Create opportunities to deal with setbacks.
- Create opportunities for social networking
- Provide opportunity to belong.
- Provide opportunities to socialize with peers and adults.
- Need to provide personal invitation to become involved.
- Provide unconditional support.
- Integrate groups.
- Laugh with them.
- Take them seriously, be available and understanding.
- Be caring, have respect for them as persons, listen without being intrusive.
- Provide consistent opportunity for recognition.
- Model good behavior.
- Teach healthy lifestyles.
- Be firm, fair, and fun.
- Provide positive adherence to rules.
- Discipline without criticism; must show constant care and concern.
- Set consequences for misbehavior.

BBM Program Planning Forms

The following three forms will aid you in documenting your target issues and

goals, along with your daily performance objectives and procedures.

[Forms 1-3]

Processing

Probably the most important step in BBM, is the processing or de-briefing using and after the recreation experience. The following guidelines may assist you in processing.

- Activities should be used to encourage individuals to reflect, describe, analyze and communicate what they have recently experienced.
- Recreation programs provide valuable experiences rich in situations, feelings, and behavioral pattern that parallel real life.
- Processing allows us the avenue to transfer these experiences back to the individual's home, work or school setting.
- It may take place any time but normally at the end of a program or activity.
- It may be formal or informal.
- The recreation leader serves as the facilitator and/or discussion leader.

Processing Approaches:

1. Teachable moments
2. Dyad
3. Small groups
4. Journal

Key:

Be a good listener.
Be non-judgmental.

The Right Words

Asking the right questions is often the key to good processing. Listed below are some questions that may help you in becoming more comfortable with processing.

1. How did you feel when you had to trust someone else to keep you safe?
2. How do you decide who you will trust?
3. What did it feel like to cooperate with other members of your group?
4. How did you (your group) make decisions?
5. How well did you do?
6. What did you say to yourself?
7. In what ways did you criticize or support yourself?
8. What type of feedback did you receive or give to others?
9. In what ways do you differ from other group members?
10. What was your greatest success today?
11. How can you use something you learned today in other situations?
12. What did you learn about yourself during this activity that you want to work on in the future?

Evaluation & Documentation of BBM

In order to determine the impact of the Benefits Based Management (BBM)

approach, a comprehensive assessment of the BBM Project should be undertaken. This assessment should take the form of a pre and post survey administered to all participants in the study, plus administering a pre and post test to a matched control group for comparative purposes. In addition, on-going evaluation will be conducted to evaluate performance objectives. Two types of evaluation will be utilized in the monitoring and assessment process: formative and summative.

Evaluation Techniques

A. Formative assessment and evaluation is carried on throughout a program or project.
B. Summative evaluation is usually conducted at the end of a project or program.

Monitoring (Formative Evaluation)

- Ongoing assessment of the recreation program.
- Want to assess performance objectives.
- Were they successfully completed?
- Were there any significant circumstances that should be continued or changed?
- Need to formally record what happened.

Methods of Conducting Summative Evaluation:

To evaluate the BBM program and its impact on participants in the program, a strategy should be designed to adequately measure BBM's impact. This includes data collection through a survey instrument, establishing a control group, and further data collection from other sources. Each step will be reviewed in detailed in the following sections.

Selecting a Demonstration Sample

A. All participants in the BBM program should be assessed.
B. Each participant will receive a survey instrument at the beginning and end of the program.

Establishing a Control Group

A. For comparison purposes, a control group should be established.
B. This control group should be matched to the BBM group in regards to age, gender, ethnicity, place of residence, economic factors, etc... .
C. If possible, the control group members should be identical to those participating in the BBM program.
D. Each member of the control group will not be able to participate in the BBM program; however, they will receive the same pre and post test as those participating in the study.

Description of the Instrument

A. In order to assess BBM's impact on youth, the survey instruments must collect date on the Target Goals and Target Issues if possible.
B. Use existing instruments whenever possible.
C. If you need to develop a new instrument, you should work with an individual knowledgeable in instrument construction and testing.

Scheduling

A. Standardized procedures must be established so that the administration of the survey instruments is consistent for the BBM group and the

control group.

B. The surveys should be administered during the first encounter with the BBM group.
C. The survey should be designed so that those with reading difficulties would be able to complete the instrument.
D. If someone in the group cannot read or understand the instructions or any of the questions, please assist them in the process.
E. Remember to have pens or pencils on hand for the participants.
F. Track pre and post individual instruments.

Control Group

A. Once the pre-test is completed by the BBM group, the control group should complete the instruments.
B. Follow the same procedures for the control group as for the demonstration group.

Other Sources of Data

A. As part of the monitoring and evaluation phase, other sources of data should be considered.
B. In addition to the actual participants in the project, parents, professors, advisors and others should be consulted.
C. Items such as grades, attendance, truancy, discipline, etc... , may also be looked at for each of the participants in the project. This data can be collected through university records.
D. Another possible source of data, would be crime and violence statistics from the university police department.
E. Last, if you notice other benefits occurring or positive behavioral changes, make note of these as "untargeted benefits."

Trouble Shooting

A. Problems may arise from time to time in implementing the evaluation and documentation phase of the program.
B. If an individual stops attending the programs, this should be documented and if someone joins the project after the start date, this should be noted.
C. Those who join late will need to complete the pre test on their first day in the program.

Summary

In summary, this phase of the BBM project is probably the most critical, due to the fact that evaluation is the key to assessing the impact of this approach to recreation programming as compared to the traditional approach. Through the collection of pre and post data on each participant, utilizing teachers and parents and possibly the police department, and focus groups, you should have a good understanding about the impact of the BBM approach.

[Figure 1]

Illustration of the Recreation Demand Hierarchy

Recreation Activity	Setting	Beneficial Experiences	Later Benefits
White-Water Rafting	Colorado River	Enjoying physical activity	Better physical fitness or maintain physical fitness
		Having a sense of achievement	Higher achievement in school/life
		Rest mentally & physically	Less discipline problems at home and in school/community
		Learn something about others	Less conflict with others
		Enjoying social interaction with friends	Develop new group of friends
		Feeling closer to an adult figure/leader	Establishes role model for future goals

Adapted from Driver, et. al. (1994); Bruns, D. & Allen, L. (1995)

[Figure 2]

BBM Activity Planning Model

Program Principles

TARGET ISSUE(S)

The major issue or problem being addressed over the length of the program.

TARGET GOALS:

Identification of the factors that will be developed through the series of activities provided over the length of the program.

ACTIVITY COMPONENTS

Performance Objectives:

Performance objectives that identify the specific observable outcomes for that day's activities.

Daily Activities and Procedures:

Identification of all specific activities for the day and the procedures used to provide these activities and to achieve the target objectives and goals.

Processing of Activities:

Provide the participants an opportunity to reflect on the day's activities. May discuss participant's perceptions of the achievement of target objectives and goals.

Monitoring:

Identification of the achievement of activity objectives and comments relating to the implementation of the activities. Do changes need to be made before the next activity session?

EVALUATION & DOCUMENTATION

Evaluate Target Issue(s)

Evaluate Target Goals

Evaluate Outcomes

BBM Program Planning Sheet

Program: _____

Target Issue: _____

Time Table: _____

Program Synopsis: _____

_____

Facility Needs: _____

Supplies: _____

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Target Goals (Protective Factors to be Addressed, *= Primary, +=Secondary)

_____ Self efficacy _____
_____ Goals orientation _____
_____ Personal responsibility _____
_____ Optimism _____
_____ Internal expectations _____
_____ Coping ability _____
_____ Other _____

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Partnering Agencies (Contact Person)

_____ School
_____ Law enforcement
_____ Church
_____ Social services
_____ Other

44

[Form 1]

Activity Report

Program Title: **Activity Title:**

Date	Daily Performance Objective(s)	Daily Procedures	Methods Used to Measure Objectives	Monitoring and Evaluation

Comments

[Form 2]

Activity Report

Program Title: **Activity Title:**

Date	Daily Performance Objective(s)	Daily Procedures	Methods Used to Measure Objectives	Monitoring and Evaluation
June 20 7:00 - 7:45 pm	75% of the participants will be able to identify two rules/ guide-lines for safe outdoor recreation.	Slide presentation on outdoor recreation, featuring various camp set-ups and places. Questions will be asked groups of four as to what they see, hear, smell, and taste in camping, when given various projects or items.	Each group will have to identify "rules" of the wilderness based on the presentation: (i.e., don't panic when lost, everyone helps to collect wood, stay with a buddy, what you carry in you carry out . . .).	❖ Each group was able to identify at least one safe rule/ guideline characteristic of the wilderness. ❖ Discussion was maintained about how these rules are applied to neighborhood life.
7:45 - 8:30 pm	50% of participants will be able to correctly tie a square knot and half-hitch knot within a period of three minutes.	Remaining in groups of 4, a rope will be given to each individual who will practice for 15 minutes on the square knot and half-hitch.	We had a little contest of those who were able to tie a knot in three minutes.	❖ Most everyone was able to tie at least one knot, but very few could tie both knots. ❖ Partners cooperated in tying knots.
8:30 - 10:00 pm	65% of the participants will be able to demonstrate correctly the proper techniques for tent set-up.	65% of the participants will be able to correctly demonstrate the proper techniques for putting up a tent.	The six groups of four were given a 30 minute instruction on tents. Different tents were distributed to the groups for set-up.	We had a contest to see who could put up their tent and get inside it within 25 minutes.

Comments: This being the first session, everything was new so no one talked or offered many impressions. A few guys came later after being asked to join the entire group. We had the feeling that this project might end, but the slide show seemed to peak some interest. By the time we had "rope" contests, we knew they would return for more. There was a good feeling by some that they could learn how to tie a knot. Putting up tents was a very helpful activity. Community residents gathered together to watch, and a particular highlight was when the guys went into the tents and remained inside talking. Problem solving seems to establish a good rapport among one another. Group leaders become obvious by the questions they ask and the interest they have in participating.

[Form 3]

EFFECTIVE EXPEDITION PLANNING

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This material is the basis of "Basics of Expedition Planning: How to Plan a Great Trip", a presentation of the 10th International Conference on Outdoor Recreation and Education.

Abstract

Effective planning for safe and fulfilling expeditions may be accomplished through a systematic approach. This paper focuses on essential topics to be addressed by any group planning an extended, self-supported outdoor adventure. Areas covered include pre-trip activities, categories of equipment, skills to develop, problems to anticipate, and considerations specific to international travel.

This article does not examine all aspects of the planning experience, but is intended as a guide through which important details may be addressed. The systematic framework can be especially useful to novice planners; for the experienced "expeditioner", it may help avoid overlooking critical elements. The author initially developed a planning guide for outdoor trips in general. This expedition planning guide is an expanded version of that original, with a number of important additional considerations generously provided by colleagues listed in the SOURCES section.

Expeditions typically exist in three stages: **anticipation** (the birth of an idea, followed by planning and preparation); **experience** (the realization of the activity); **reflection** (reminiscence and memory). All participants have the ability to experience each of these stages; some prefer to focus on one over the other two. Any expeditioner with experience recognizes the importance of the serious but not unenjoyable business of effective planning. A systematic approach to the planning elements within the anticipation phase is examined in the pages that follow.

To some extent, the word "expedition" is subjective. Where a group places itself on the semantic continuum bounded by a picnic on one extreme and a season in the wilderness on the other, is the choice of the participants. Most outdoor enthusiasts would agree, however, that an expedition is distinguished from other overnight wilderness travel in that it involves extended time and distance in the field, it is beyond the reach of immediate rescue, and the party is self-contained regarding gear, provisions and decision-making responsibilities. Due to tremendous advances in equipment, technique, maps, location and communication devices, established rescue resources, and prior explorations, what used to be considered an expedition may now be seen by some as an extended outing.

> Ah, not to be cut off,
> not through the slightest partition

Shut out from the law of the stars
The inner -- what is it?
if not intensified sky,
hurled through with birds and deep
with the winds of homecoming Rainer Maria Rilke

Expedition planners usually seek excitement, relaxation or both on an extended excursion into a remote natural environment. To enjoy the experience, they arrange to do three things: keep their group safe; avoid degradation of wild lands and waterways; and achieve a fulfilling, exciting adventure. To achieve these goals, the wilderness traveler will do well to consider each of the following lists. LIST 1 describes things to do in preparation; LIST 2 names and briefly addresses equipment groups. After the planning is complete, the expedition is conducted and post-trip activities take place. Details of these two phases are not covered within the scope of this paper.

On both lists, items are not arranged in order of importance, as each one deserves careful consideration before entering an uncontrolled wilderness setting. Detailed equipment lists for specific types of expedition activities are available elsewhere.

LIST 1: 11 PREPARATION ACTIVITIES

Any one of the first three areas in this group will become the jumping off point in the planning process. The initial person or persons will focus on **WHAT** they wish to do (boating / climbing / trekking, etc.); or on **WHERE** they wish to go adventuring (Africa / U. S. Southwest / Arctic National Wildlife Refuge, etc.); or **WHO** they wish to travel with (Outdoor Program signups / family / friends / like-ability colleagues, etc.). As with every other aspect of planning, initial decisions in these three areas may have significant consequences.

SELECT AN ACTIVITY Stay within the interest area, skill level, and experience level of the group. Also consider the ease of acquiring needed gear, and other aspects as provided elsewhere on this list.

SELECT A LOCATION Determine if the location is accessible and feasible within time and financial limitations. As with each area on this list, apply the following tests: Is this realistic? Can we create acceptable alternatives if something goes awry?.

SELECT COMPANIONS Choosing group members is a decision upon which an expedition may thrive or flounder. Remember that an extended time will be spent with people you may not know well, in a remote environment that may prohibit expulsion. Good conflict resolution skills will be needed by any group.

> *One group no longer invites a friend who, long days from medical help, refused to cease diving into the opaque, shallow waters of a boulder-studded desert stream.*

As soon as other people are included, trip decisions no longer belong to

the initiator alone. It is important in the early stages to express which aspects are non-negotiable; anticipation of the most important details is therefore critical before the first meeting.

Commitment may be demonstrated by members initially paying into a non-refundable group account, by investing significant labor in the planning process, and by exhibiting positive spirit toward the endeavor.

Other attributes of importance include fitness level, specific activity skills, first aid background, and others.

Also, consider the mix of high-competency versus low-competency participants, and strangers versus friends. Groups should be assembled with similar technical abilities and attitudes regarding acceptable levels of risk. Large groups create more potential for problems and disharmony, but on the plus side, may allow better finances and distribution of labor.

> *On another trip, the presence of a .45 automatic pistol was made evident when it was discharged in the wee hours by one boater, drunk on a secret whiskey stash.*

HOLD MEETINGS TO DEVELOP GOALS AND PLANS Clear, frank discussions allow participants to understand if the adventure is within their level of interest, comfort, and commitment.

Develop a preparation time frame: if an ambitious trip, or if seeking sponsorship, at least one year of planning may be necessary. Discuss other time factors: season, length of trip, and dates. Time limitations may be related to the needs of family, work, school and important events.

Flexibility in planning is important; however, "winging it" can create problems when some don't want to change plans at the last minute. Find a balance acceptable to all group members regarding which plans are unchangeable and fixed, and which remain open to modification.

Discuss desired leadership styles and methods of reaching decisions. Determine where on the continuum between leader-led and cooperative leadership this expedition will lie. Consider whether this structure can be modified as the trip progresses.

Goals may focus on interactions among group members, on wilderness experiences as they unfold, or on a specific objective, such as a peak ascent. Individual expectations may be written out or discussed verbally. This leads to a clearer picture of group goals and reveals whether they are compatible with individual expectations. Determine if the group agrees on important goals such as safety, staying friends, and Leave No Trace.

> *In the final preparation stages for a five-week expedition, one member talked his group into the late addition of a person he met. He then dropped out, leaving on the team someone with unstated personal goals. Too late, they discovered her expectations included continuous chatter by day and interpersonal encounter sessions by night.*

Determine whether a written agreement regarding expedition details is needed. Written agreements are essential if running the trip through an organization. Whether written or verbal, cover: liability issues, responsibility to each other, and to gear. If the trip is organized among family or trusted friends, oral agreements may be adequate, but state them in the presence of the entire group.

Leadership responsibilities assumed by participants may include logistics, hazard management, finances, research, route finding, transportation, food, etc. Each person will need to contribute, and will enjoy the accompanying feeling of trip ownership.

Determine to what extent skill levels must be in place, and to what extent they may be developed *en route*.

Consider what equipment and food to take versus what to acquire at the expedition location. It may be a mistake to depend on distant sources for critical gear and groceries.

Discuss what levels of personal hygiene are likely to be possible.

Insurance issues may include life, medical, and property policies. Determine if these are in effect for the type and location of the trip.

Additional points for discussion include tobacco and alcohol use, current and past medical conditions, training for fitness, and behavioral matters.

ASSURE SAFETY This area is not distinct from any of the others on this list. For example, assembling the wrong collection of participants, or designing a trip that exceeds the abilities of the group may have dire safety consequences.

> *Two open canoeists from Iowa planned to float the length of the Colorado River. Prior to launch, they wisely changed plans after hearing of "rough water" in a canyon called Cataract.*

Keep a packet of survival articles for surprise situations: water, food, 1st aid, warm clothes, toiletries, medications, sun protection.

Prepare a minimum of two sets of maps. In the planning stages, study them carefully: look for hazards, plan escape routes and design alternatives. Don't assume complete accuracy on any map.

Develop information packets, including a trip synopsis, copies of routes, timetables, permits and other documents. Each member may wish to have a packet, and copies should be left behind with significant others or agency sponsors. At least two packets should be carried, separately, on the expedition. Maps and other critical documents must be protected against water damage and loss.

Plan for accidental separation. Communication is an important area for discussion, including phone access and radio issues.

On some trips, it is appropriate to register with, or at least notify, local authorities.

Critical medications should be carried in duplicate quantities by separate group members.

Take efficient, but not excessive, 1st aid and repair kits. Know how to use the contents; at least some group members should be certified in first aid and CPR.

A good overall approach to safety is to assume problems will arise: hope for the best, but plan for the worst.

ARRANGE FINANCES Prepare money: travelers checks are not always convenient; however, carrying significant amounts of cash may be unwise.

Consider a separate account, to include group money, emergency funds, and deposits against loss that may occur during the trip.

A "Back-out" clause may be appropriate, in which members know what financial penalties will be assessed by the group against individuals who cancel before or during the expedition.

Financial impact may be higher if the group waits too long to buy needed gear, due to the inefficiencies of missed sales and lost opportunities for comparative shopping. Equipment ordered with inadequate lead time may not arrive when needed. Likewise, flight, ferry, and lodging may prove more expensive if not confirmed early on.

GATHER INFORMATION Formulate detailed lists, using the general guidelines found on LIST 2, below. Think through a full day of the expedition: What information is needed to make this day work?

Read books, journals and guidebooks, talk to those who know the area, and make pertinent notes. Locate important information early: topographic maps, tide tables, etc. Computers are making it increasingly easy to access information.

Additional areas for research: history of area, local availability of water, food and gear, private property issues, etc.

Especially when on site, exercise caution in accepting the information of "locals"; comments may be useful and accurate, or otherwise.

GATHER EQUIPMENT Decide whether to use gear owned by group members, or to buy new equipment, or to borrow, or to rent. After determining what is necessary, apply some important tests to gear selection: pick what is necessary, reliable, durable, lightweight, and easily repaired.

During the planning stage, determine who will own group equipment at the end of the trip, and how equipment damage or loss will be managed.

Consider what to take versus what to acquire at the expedition location.

Avoid waiting until the expedition starts to use brand-new or borrowed gear for the first time. Likewise, avoid using equipment that is on the brink of failure from overuse.

Determine which items are most critical, and where possible, bring duplicates. Glasses, medications, 1st aid, sun protection and certain other items should be carried in multiples, by separate group members, in secure containers.

ASSURE ACCESS TO DRINKING WATER AND PREPARE FOOD

Decide how to package, resupply, and cache supplies.

Determine calories needed, nutritional value, weight, preservability, emergency supplies, food allergies and preferences, variety, and ease of preparation.

An arctic storm delayed by eleven days the bush plane pick-up of four climbers. By preparing for such an emergency, they had extra noodles to eat, and fuel to melt snow for drinking water.

Explore issues related to fuel: quantity, type, and transport. Avoid multiple models of stoves and other gear.

Avoid dependence on food found in the wild, as availability can't be assured. Don't eat wild plants and animals unless certain of safety and aware of ecological considerations.

PRACTICE, TROUBLE-SHOOT Experience one or more "shakedown cruises". Duplicate expected conditions and circumstances to allow potential problems to arise. Test equipment, group members, relationships, and systems. It is better to encounter glitches and learn to deal with them before committing to the wilderness.

ARRANGE TRANSPORTATION FOR PEOPLE AND GEAR

Consider roads, trails, vehicular preparedness and other aspects of access. Where possible, reduce the volume and weight of gear and consumables to increase transportation ease and avoid the problems of pre-shipping. If it is necessary to ship in advance, research details carefully: Where will it go? Who will receive and store it? If things go awry, what alternatives are there?

Carrying frequently-used items in a daypack during transportation can avoid flailing through expedition duffel. Consider the difficulty of hand transportation when packing. Pack gear to avoid subsequent repacking.

LIST 2: 10 EQUIPMENT GROUPS

Many considerations for this list are addressed under subtopics of LIST 1. Apply the "Is this really needed?" test when selecting gear. While it is difficult to overplan, it is easy to overpack.

FOOD AND WATER This is typically a much more labor-intensive planning and preparation stage than group members realize.

Availability and safety of drinking water are critical. Determine to what extent water may be carried, found fresh (rare), heat-treated, chemically treated, or filtered. Most groups use some combination of these techniques.

In addition to the time-consuming process of planning and preparing food, address kitchen and cleanup needs. Containers should reliably protect food from contamination and critter invasions.

CLOTHING Good choices for clothing: items that protect, fit comfortably, clean well, and remain functional. Clothes that are hard to clean or dry or that lack durability are poor choices. Dark clothing looks better over time. Dark clothes can be uncomfortable in hot weather, but are beneficial when it's sunny and cold.

Most important, of course, is to choose clothing that enhances safety. The "killer cloth" (cotton) is wonderful for hot, dry climates, but almost every expedition will require clothes that create dry warmth: water/wind barriers and synthetic fleeces or wool. Footwear choices are also critical.

SHELTER Tents, sleeping bags, pads, tarps and other shelter items must pass the durability and reliability tests. For most trips, err on the side of warmer and drier. As with stoves and other gear typically taken in multiple quantities, use of identical models increases the ability to pirate parts, and reduces the needed range of repair materials and tools.

ACTIVITY ITEMS These include the boats / climbing hardware / snow travel gear, etc. that make the expedition possible. Apply standard tests; include extras where possible; bring the repair kits.

SAFETY As with the "Assure Safety" section in LIST 1, safety items are an element of every subgroup in LIST 2: forgotten kitchen cleanup items may result in Salmonella infections; a broken sleeping bag zipper may create hypothermia.

HYGIENE Include packaged, moist wipes that clean without additional soap. These dry quickly and can be easily isolated and packed out. Soaps and other items should be considered with care.

ENVIRONMENTAL PROTECTION Assure group members have a common (and high) standard for disposal of human waste, and that they support "Pack it in, pack it out" ethics. Determine how the group will handle protecting wild lands and waters, and the living communities they support.

CRITICAL PAPER: MONEY, TRAVEL DOCUMENTS, PERMITS

It may be wise to distribute portions of group money among group members. Check travel documents and permits for presence, completeness, and security of location.

ENTERTAINMENT AND COMFORTS Sealing a change of clothes in a plastic

bag can make more pleasant a day in town, or the return trip home. Reading material can be a joy, especially for unplanned pauses. Volume and weight can be cut by rotating books among the group.

On an Alaska coastal canoeing adventure, one party was so laden with unneeded extras such as chairs, extra tackle and camp toys, that a power boat was necessary to get them to the first site.

TRANSPORTATION Extraction gear, extra fuel, tools, manuals and documentation may all be important. Keep travel tickets secure; re-check schedules.

Useful skills and areas of knowledge to hone, prior to departure

Environmental ethics, Leave No Trace principles, safety, leadership, group behavior, communications, camping skills, rations, menus, cooking, equipment use, clothing selection and care, health and sanitation, travel techniques, route finding, map, compass, use of radio and positioning systems, survival, first aid, emergency procedures, weather evaluation, natural and cultural history, trip planning, specific activity skills, judgment.

Potential problems to be addressed, prior to departure

Thorough anticipation of problems encourages better training, improved communication, better gear selection, and development of useful alternate plans.

The following list is not comprehensive. Many expeditions will encounter a number of these challenges: wind, dust, difficult terrain or water conditions, snow, cold, ice, poor light conditions, rain, heat, scarce or tainted food or water, equipment or vehicle failure, dangerous or nuisance animals and plants, poor group or individual behavior, injury, fatigue (physical, mental, or emotional), problems with other groups or individuals, "get-home-itis", "stay-longer-itis".

I've been on single trips where most of these challenges have occurred.

Considerations for expeditions outside the United States

These include obtaining visas, passports, permits, and inoculations (allow ample lead time); respecting local laws and customs; researching local holidays and bureaucratic regulations. Don't assume agencies are run according to U. S. standards.

Photocopy passports, visas, immunization booklets, permits, etc. in case of loss; each member carries photocopies of group documents with her or his paperwork packet. Bring prescription medications in original containers, so contents may be easily verified by customs personnel.

"Background Notes" are available on many countries, from the U. S. Government Printing Office (202) 512-1800.

Emergencies to anticipate may include natural or societal disasters.

Assure the presence of emergency water, food and clothing even on flights or overland travel, as the group may be stuck in places for many hours without these critical items.

Conclusion

There are two additional, essential things to take on every expedition: common sense and good judgment. Like most skills, judgment can be developed and improved through practice, and by thinking cautiously in all situations that require care. A crucial time to use these skills is when deciding what to do, where to do it, and who to include in your group. Common sense is not necessarily pervasive within an expedition team, and it may be a mistake to assume a group member is in possession of it. If common sense is not an innate characteristic, promote GOOD sense.

Successful expeditions may prove to be powerful, life-changing experiences for people. Conversely, failed expeditions may be destructive to their physical, psychological, or spiritual well-being. The planning phase is essential in determining which of these outcomes will prevail.

SLEEPING IN THE FOREST

I thought the earth
remembered me, she
took me back so tenderly, arranging
her dark skirts, her pockets
full of lichens and seeds. I slept
as never before, a stone
on the riverbed, nothing
between me and the white fire of the stars
but my thoughts, and they floated
light as moths among the branches
of the perfect trees. All night
I heard the small kingdoms breathing
around me, the insects, and the birds
who do their work in the darkness. All night
I rose and fell, as if in water, grappling
with a luminous doom. By morning
I had vanished at least a dozen times
into something better.

Mary Oliver

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The Psychology of Judgment for Outdoor Leaders

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There are a great many competencies that an outdoor leader must master before he or she may claim to be proficient in the trade. None may be as important as the ability to form good quality decisions based on sound judgment. Much research in the field of Cognitive and Social Psychology over the past one hundred years has focused on how decision-makers form the bases for their decisions. Outdoor leaders may gain many insights from studying the work of cognitive psychologists. In this article, the reader will find information from many different studies from different disciplines mostly compiled by Scott Plous (1993). Some of the studies represented in this article conflict in their findings, all will give insight into how outdoor leaders may improve their judgment and decision-making abilities.

Judgment is the process of making decisions with incomplete information concerning either the outcomes or the decision factors such as what the clouds look like on the other side of the mountain. For the most part, humans are relatively good at observing and learning from past judgments and their outcomes- IF the differences between the costs and the benefits are clear. When ambiguity and uncertainty are present or other confounding variables such as desire or ego, the accuracy of human judgment plummets. There are several theories in cognitive psychology that help to explain this phenomenon. These theories range from the "evolutionary approach" (a theory stemming from anthropology) to social judgment theories (stemming from cognitive and social psychology) such as "group-think".

According to the evolutionary approach, humans reason most poorly when faced with problems that their evolutionary predecessors never encountered. For example, Watson (1982) wanted to test the ability of subjects to verify a rule. He gave subjects a rule, such as "if a card has A on one side, it must have a 4 on the other" (a simple "if p, then q" test). Subjects were then asked to turn over the appropriate cards in order to determine if the rule had been violated. The four cards contained cases corresponding to ``p'', ``not p'', ``q'', and ``not q'' (A, C, 4, and 6, respectively). Logic dictates that the rule is violated when ``p'' is true but ``q'' is false. The subjects had only to turn over the card corresponding to p (in this case A) and not q (in this case 6) to verify the rule. Surprisingly, subjects in this study and other similar studies were able to give the correct solution at best 25% of the time. Recently, researchers have used the evolutionary approach to explain the lack of this type of problem solving ability in humans. Barkow, Cosmides and Tooby (1992) theorized that if the dilemma was structured to fit questions that human ancestors must have faced, like identifying social cheaters, modern humans would be able to perform better at a Watson-like test requiring the same "if p, then q" logic. Cosmides and Tooby used scenarios centered in determining whether a social contract is being violated such as "the chief of the tribe says that if you get a tattoo on your face, he will give you a casaba root" and other scenarios of a more arbitrary nature such as "if you eat duckier meat, then you have found an ostrich eggshell" (Bower, 1994). They found that when the test contained a possible violation of a social contract, many more of the subjects were able to solve it (up to 75%)

as opposed to the more arbitrary test (only 25%). They found this to be true even if the social contract situation occurs in an unfamiliar setting.

Many decisions faced by the outdoor leader are undoubtedly outside the realm of decisions with which humanity's ancestors were forced to contend. Consider the complexity of the decisions a lead rock climber must make each time a piece of protection is placed. These decisions involve the physics of falling objects, the stability of the rock, his or her own mental condition and those of his or her companions, etc. So, outdoor leaders, like many other professional decision-makers, may, from the beginning, be at a disadvantage. People in general may lack the necessary cognitive mechanisms to efficiently solve the myriad of complex social and technical dilemmas they face daily in their jobs. Beginning at such a disadvantage, all decision-makers could use a little help. In the following sections the reader will find various problems and biases identified by researchers seeking to understand human judgment and decision-making. Also included are some solutions and self-checks which the outdoor leader may find useful in overcoming problems with making good-quality judgments.

Selective Perceptions

The way in which the environment is perceived strongly influences the way leadership situations are perceived. It can therefore be said that the environment directly affects actions taken by the decision maker. Furthermore, as researchers Bruner and Postman explain, "Perceptual organization is powerfully determined by expectations built upon past commerce with the environment." (1949; p. 222) As the decision maker advances through a series of situations within different environments, decisions are made. Each decision made with incomplete facts and ambiguity of information is formulated using judgment.

Each decision that is made in response to a unique situation and that is remembered comprises the decision maker's repertory of past decisions. These past decisions collectively form a knowledge base drawn upon for not only information but also for correlation with the situation at hand. The more the present situation parallels a remembered past situation, the more the decision maker relies upon his or her recollection of the decision's success or failure. Within one's memory, the actual success or failure of a decision tends to become clouded and may change depending on many cognitive factors. Memory is considered to be reconstructive and, therefore, susceptible to bias.

Bruner and Postman in 1949 constructed an experiment designed to investigate selective perceptions. They showed subjects playing cards for a very short time. Some of the cards were "trick" cards like a black three of hearts. The responses of the subjects fit into four basic categories: Dominance: subjects reacted by fitting their perceptions into their existing experience (believing they only saw normal cards). Compromise: subjects make up explanations to suit them (like a black three of hearts looked purple). Disruption: subjects became very confused and were not even sure of exactly what they had been looking. Recognition: Some of the subjects were able to identify the non-traditional cards, but they were in the minority and it generally took them 4 times as long to identify trick cards. Many subsequent studies have shown similar results. Another illustration is to think about a pleasant situation in which the reader has recently been. Take some time and try it. Most folks will, in their mind's eye, see themselves performing the activity. Unless the

reader was looking in a mirror at the time the activity was being performed, then the scene was reconstructed in the reader's mind. The bottom line is that perceptions are selective, reconstructive, and subject to memory biases. It is therefore important to keep accurate notes about events that are observed. Another way to reduce the prevalence of selective memory and perceptions is to ask one's self several questions when making a decision or judgment.

1. Am I motivated to see things a certain way?
2. What expectations did I bring into the situation?
3. Would I see things differently without these motivations and expectations?
4. Have I consulted others who do not share my expectations and motives? (Plous, 1993: p. 21).

Context effects

The context in which one encounters a situation affects the way it is perceived and therefore will affect judgments and decisions. There are three noteworthy context effects: a) The Primacy effect- the first attribute of the subject or situation being considered is the one that makes the greatest impact on the decision maker, b) The Recency effect- the last attribute of the subject or situation being considered is the one that makes the greatest impact on the decision maker, and c) The Halo effect- once an attribute is attached to a person or a situation, other perceptions are colored by this attribute.

The important point here is that a decision maker does not necessarily attach equal weight to attributes observed in different contexts. Context effects are relatively easily overcome by:

5. Trying to maintain a 3rd person perspective by stepping back and observing a situation like you were watching the scene from a movie theater
6. Keeping accurate records
7. Asking others (especially those with differing views) for their opinions.

Heuristics and the biases they create

There are many heuristics (using general rules to help find solutions or answers) which help humans operate in a complex environment by simplifying decision-making. Decisions made from the use of heuristics often approximate the optimal answers suggested by normative models (Plous, 1993). However, heuristics can get in the way by creating predictable biases when decisions require more of an in-depth examination of the facts. One of the heuristics that is susceptible to bias is called the "availability heuristic." The availability heuristic indicates that an event which is easily imaginable in one's mind may seem more likely than another event that is more difficult to imagine. Further, the inability to imagine an event may make that event seem

less likely than another event even though both events could have the same probability. To help mitigate the influences of the availability heuristic researchers suggest these points:

8. Get to know the rates of events and link them with activities. This way there is no guess work as to the chance of occurrence.

9. Be aware of wishful thinking. The probability of desirable events is usually overestimated and the probability of undesirable events is often underestimated.

10. Break compound events into simple events and look at the probabilities individually.

Judgments Involving Groups

Groups can display many of the susceptibilities to biases that individual decision makers do, however, they are often able to make better decisions than individuals, especially if there are varying opinions within the group. It has also been shown that an exceptional decision maker can out-perform the decision-making ability of a group. There are some impediments to decision-making unique to groups. One of the most interesting and potentially devastating to an outdoor leadership team is called "Groupthink". Groupthink is a term coined by Irving Janis (1982) and "refers to a deterioration of mental efficiency, reality testing, and moral judgment that results from in-group pressures" (p.9). Groupthink is cited as being one of the main contributors to monumentally poor decisions such as the "Bay of Pigs" and the Challenger disaster. Janis and others give several methods to protect groups from falling prey to Groupthink:

11. Leaders should encourage dissenting opinions

12. The main leader should express opinions last in the group.

13. Whenever possible, split the group and work on the decision in parallel and compare answers.

14. Designate someone to play the "Devil's Advocate" and oppose any line of reasoning the group is pursuing.

Social loafing- (Lantane, Williams and Harkins, 1979) is another phenomenon that may have implications to the outdoor leader. Persons who work in groups do not work as hard as they do when they work alone. In an experiment reported by Moede (1927) involving how hard persons pulled on a rope, those who worked in a group of two pulled 93 percent as hard as they did when they were alone. Persons who worked in a group of three pulled 83 percent as hard as they did when they were alone. And, persons working in a group of eight pulled only 49 percent as hard as they did when they were working alone. The implications to the outdoor leader are obvious. One way to mitigate the detrimental effects of this phenomenon is to:

15. Make people aware of the tendency to loaf in a social situation. Cohesive groups of friends showed less social loafing than did groups of strangers.

Common Traps in Decision-making

Common traps refer to problems in judgment that are almost ubiquitous to human decision-makers. Three main types of common traps will be discussed: Overconfidence; Self-fulfilling Prophecies; and Behavioral Traps.

1) Overconfidence: Confidence levels usually exceed accuracy by 10 to 20 percent, unless the decision maker is extremely confident of his or her answer, then confidence exceeds accuracy by a higher percentage (Paese and Sniezek, 1991). To correct this problem one can calibrate one's judgments by these methods:

16. If you are very sure (90% range) then consider the probability that you are actually correct in your assumption as being in the 70 to 75 percent range. (Plous, 1993)

17. Consider why a different answer may be correct as well. Even though it may not change your mind, it may help to recalibrate your judgments.

2) Self fulfilling prophecies- People tend to seek responses and place higher importance on observations that confirm their beliefs. It can often be as informative, if not more informative, to find disconfirming data. To counter this common trap some research suggests that simply by:

18. Be aware of the tendency to seek only confirming observations. Decision-makers should seek a balanced mix of both confirming and disconfirming observations.

3) Behavioral traps- Behavioral ``Countertraps (sins of omission) arise when we avoid potentially beneficial behavior, while (behavioral) traps (sins of commission) occur when we take potentially harmful courses of action" (Cross and Guyer, 1980, p. 18). Researchers Cross and Guyer published a taxonomy of behavioral traps which will probably sound familiar to the reader since many of them may be witnessed in every-day life, as well as on outdoor expeditions. They are:

1. **Time delay trap** -- short term consequences run counter to long term consequences e.g. ignoring social problems within the group which may lead to group non-cohesion versus dealing with the problem when it occurs, or the convenience of disposable products versus the long term consequences of environmental degradation.

2. **Ignorance trap** -- Negative consequences are not known or understood or foreseen at the outset due to lack of preparedness.

3. **Investment trap** -- Investment of or prior expenditures of time, money, effort or other resources lead people to make choices they would not otherwise make e.g. the time and effort put into the approach of a peak influencing the decision to go forward in the face of uncertain weather. Another term for this trap is the sunk-cost effect.

4. **Deterioration trap** -- (sliding reinforcer trap) similar to investment trap except that it changes over time like a heroin addiction. E.g.

After a while a base jumping adrenaline addict takes more and more chances in order to keep from feeling the symptoms of withdrawal as much as he or she does to feel the euphoria of the activity.

5. **Collective trap** -- The pursuit of individual self-interest results in adverse consequences for the collective. For outdoor leaders, this trap may also be viewed as the antithesis of the well-known criterion of good leadership, selflessness. A leader would seem selfish if he or she wanted to proceed with an activity without due regard to the needs or desires of the rest of the group.

This set of behavioral traps may be the most important of all of the preceding judgment and decision-making stumbling blocks for outdoor leaders. Some researchers even claim that cognitive traps represent "all of our most intractable and large-scale urban, national, and international problems today" (Platt, 1973). They exemplify the problems and shortcomings associated with quality judgment and decision-making in outdoor leaders and other professional decision-makers. As for hints to help avoid cognitive traps, there are few. On the other hand, some have successfully used cognitive traps to their advantage. Scott Plous (1993, page 252) explains that many individuals who are attempting to accomplish difficult self-imposed tasks such as dieting, quitting smoking, and quitting drinking often do so by, "intentionally trapping themselves in healthful patterns of living." Plous goes on to give four tips if entrapment is desired. Here they are changed so that they indicate what to do when entrapment is not desired. Decision-makers should:

19. Seek information about the costs of entrapment

20. Always set limits or evaluating the costs of entrapment

21. Make a public declaration of commitment to refrain from becoming entrapped

22. Avoid competition with other people who are striving toward the same goal (Plous, 1993; p. 252)

Conclusion

Trained leaders who possess the ability to consistently make decisions that have a high percentage of success comprise the most successful and proficient leaders. Good judgment that leads to good decisions is an essential component of the skills needed by adventure education and outdoor leadership professionals. If it is true that human decision-makers lack some of the essential cognitive mechanisms needed to deal with the many hundreds of decisions required of him or her daily, any insight that would aid in making better decisions would surely be welcomed. In this paper, the authors have presented only a first glimpse of some of the literature on judgment and decision-making that is available to the outdoor leader.

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UIAGM ROPEHANDLING TECHNIQUES

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ABSTRACT

The Union Internationale des Associations des Guides de Montagne's (UIAGM) standard ropehandling techniques are intended to form the standard for guiding ropework worldwide, and in UIAGM member countries, has become the legal standard for instructional institutions and commercial guiding organizations. This session is intended to discuss and demonstrate selected UIAGM ropehandling techniques as applies to these organizations.

THE UIAGM

The Union Internationale des Associations des Guides de Montagne (UIAGM)is an international body that sets the standards for professional mountain guides worldwide.The following countries are members of the UIAGM: Austria, Canada, France, Germany, Great Britain, Japan, Italy, New Zealand, Norway, Peru, Switzerland. The American Mountain Guides Association has made application to the UIAGM for the United States to become a member country and this application is in the process of development.

As the legal body for qualifying guides within its member countries, non UIAGM guides are restricted access to many activities within these countries. As the worldwide standard setting body, UIAGM ropehandling techniques are important guidelines for instructional institutions and guiding organizations to consider - as they are the overriding legal norms in member countries.

ANCHORS

Anchors create a protection arrangement intended to hold any load that could potentially be created in a given situation. Essentially if all else goes wrong and everything in the protection scheme fails, the anchor is there to prevent the guide and client from falling off the route.

Categories: Anchors can be categorized into two classes. Simple anchors are those that are intended to hold loads in one direction. Only unidirectional anchors are needed to build simple anchors. Complex anchors are those intended to hold loads in more than one direction. At least one of the pieces of protection used to create a complex anchor must be multidirectional.

Construction and Arrangement: The placements used in multi point anchors can be oriented horizontally to one another or vertically. Vertical orientations more effectively distribute loads as the angle of the connecting slings is less. All sling angles within an anchor system should be less than 120 degrees and ideally less than 90 degrees.

Connecting the individual pieces of protection together into an anchor is generally done with slings rather than the rope when guiding. This allows the guide to easily adjust from belaying the client to leading without any changes to the configuration of the anchor. Guides carry two - five meter long 7mm slings for connecting anchor protection pieces together.

By using individual slings or by tying a single long sling together at a main point, pieces are joined independently. This is the preferred method of building an anchor. Independent connection is an advantage when one placement in the anchor is distinctly inferior to the other(s). With this method of connection the failure of one piece affects the others as little as possible. The disadvantage of independently connected placements is that load distribution is easily compromised if the direction from which force is applied shifts.

Using a single long sling, a load distributing connection can be made. This connection will distribute loads to the placements through a range of motion and thus maintains distribution if the forces shift. However if one piece fails, the belay will be dropped as the sling extends.

Master Point of Attachment: In guiding, anchors are most effective when arranged in such a way that all placements connect to one common "master" point. A common point reduces confusion and binding and provides an attachment point for rescue systems should they be required. Normally, all belays or tie ins are secured to the master point.

GUIDING TECHNIQUES

The methods used by guides are related to those of climbers, skiers and mountaineers in regular climbing. However, modifications to technique and application often varies from non-guided climbing.

Shortroping: In guiding, the option of moving unroped seldom exists. The guide must be on the rope with the client(s) to secure them in case of a slip or fall even when moving together. The use of the rope to move together under such circumstances is called "shortroping." Shortroping is as much a way to control the client as it is a technical skill.

Endroping: When it is no longer safe to move together or climb short difficulties by shortroping, the guide uses techniques that more resemble those used by climbers on technical ground. One or two clients are tied to the end of the rope - or on two ropes if using double or twin ropes - and the clients are belayed using anchors and belay techniques appropriate to the situation. Endroping is a much simpler procedure than shortroping.

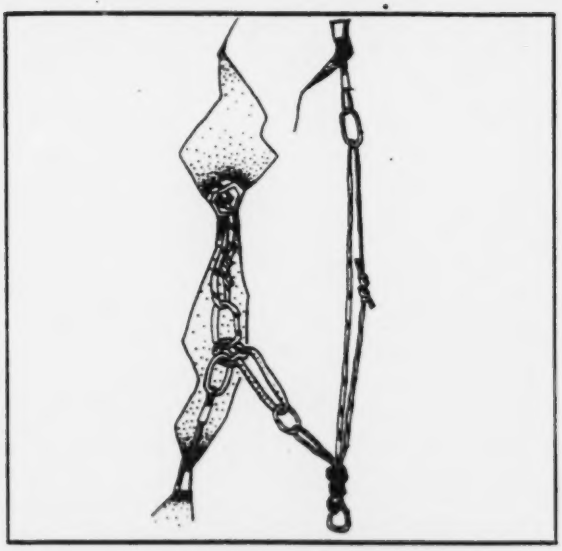
Top Roping: Top roping techniques are used primarily when instructing. By setting a top rope, the guide is able to instruct and coach more efficiently on shorter routes with better proximity to the client. It is also possible for the guide to supervise more than one top rope at a time if ropes are set up relatively close together. Top ropes can be set up in two configurations, top belayed and bottom belayed (slingshot).

Rappelling: Generally, it is preferable for clients to be lowered by the guide, although in some situations, it is appropriate for the client to rappel. All clients should be belayed when rappelling. This can be with a separate rope, one end of a doubled rope, or if the guide rappels first through a bottom belay. Rappels normally occur in three formats: the client rappels first, the guide rappels first, or pair rappels (where guide and client rappel simultaneously).

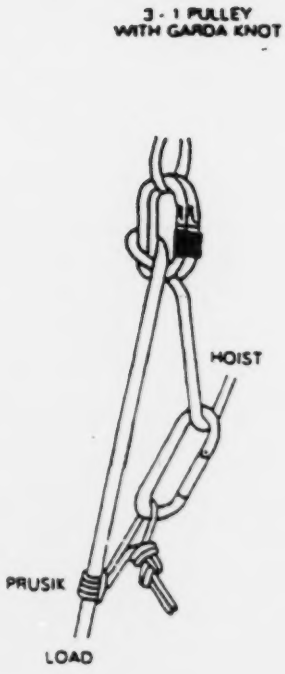
RESCUE SYSTEMS

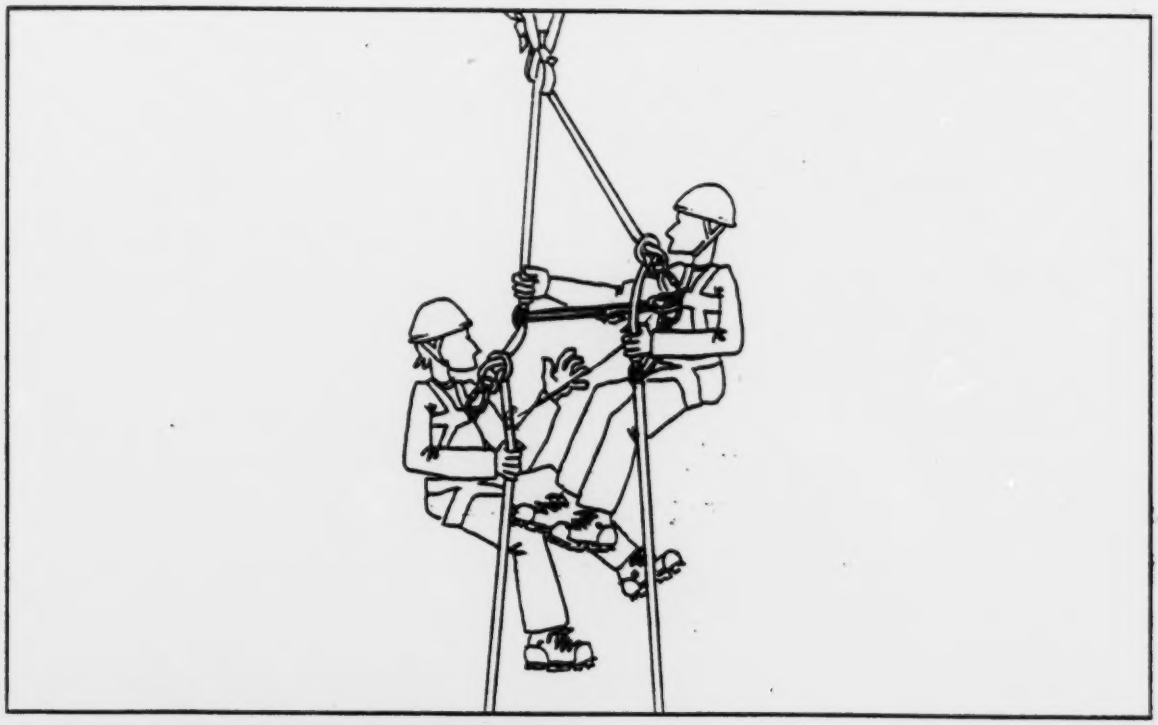
Emergency response and rescue situations require quick, innovative, flexible thinking and a clearheaded, calm approach to potentially complex problems. If working alone, the guide must be prepared to create a solution entirely without help. Guides seldom use emergency and rescue techniques, but when they are needed the response must be fast and efficient to prevent an accident from escalating.

A simple way to look at rescue in the vertical environment is as a series of load transfers. These load transfers shift the weight off the belay system to the anchor, then to friction systems for lowering or pulley systems for raising. If problems develop, the load is transferred back to the anchor so the problem can be rectified or the system modified. It is necessary to anticipate potential problems and have a system flexible enough that it is possible to reverse the load transfer process. There are five primary steps in any improvised rescue scenario: arrest the fall, block the belay to free the hands, transfer the load from the belay to the anchor, create a lowering or raising system, and transfer the load to the lowering/raising system.

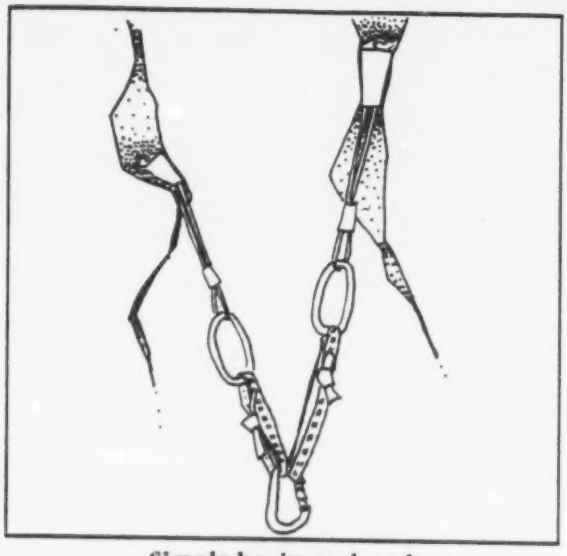


Independent connection of complex anchor. Oppositioned pieces of protection used for multidirectional component.

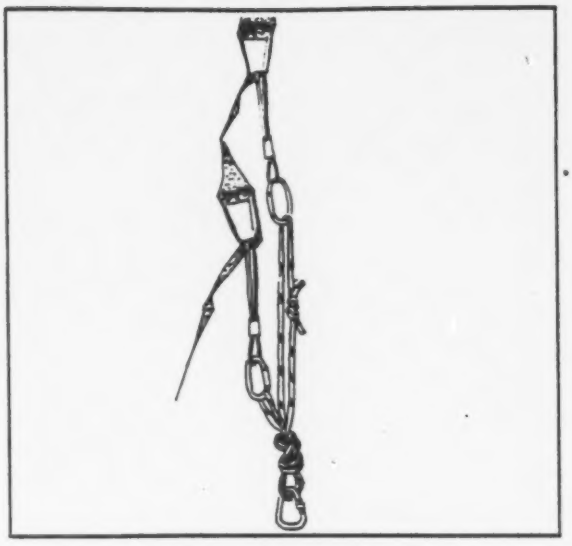




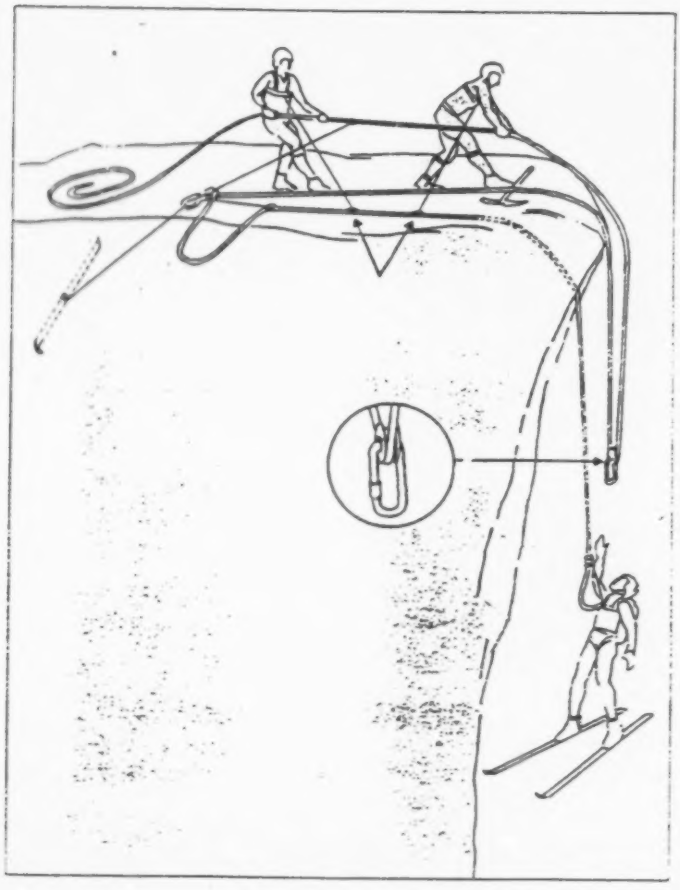
Guide and client rappelling as a pair

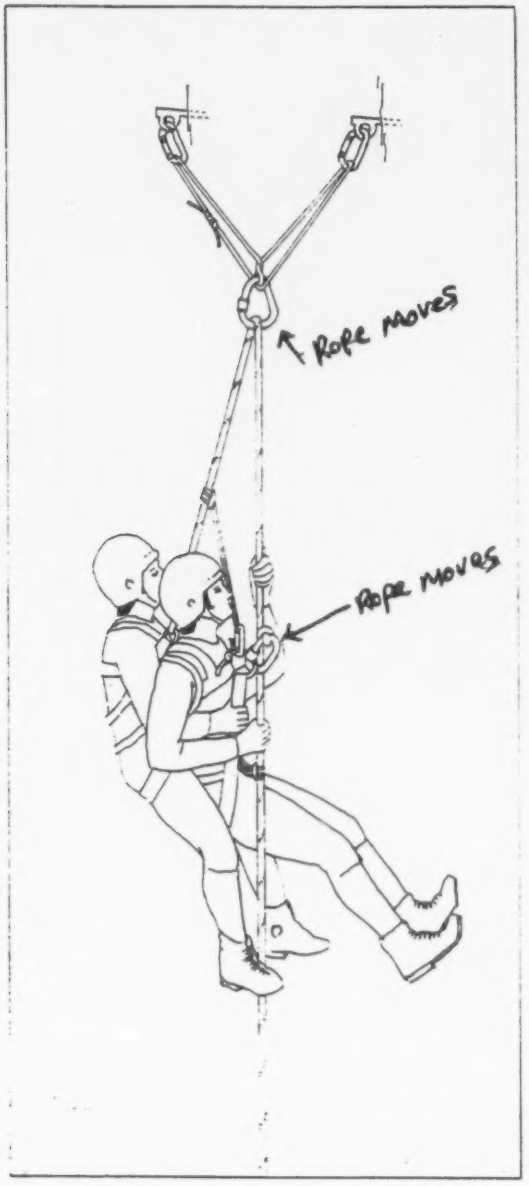


Simple horizontal anchor.
Independently connected with 2 slings.



Simple vertical anchor.
Independently connected with 1 sling.





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crevasse rescue

Credits: All text and drawings are from the Canadian, French and German UIAGM Guide's Manuals.

CASE STUDIES IN WILDERNESS MEDICINE

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ABSTRACT
This workshop will explore current issues in wilderness medicine through the use of case studies. Emphasis will be placed on evacuation decision making. This will be an excellent refresher for anyone with wilderness medicine training and invaluable for program administrators responsible for developing evacuation protocols.

CASE STUDY 1
You are an instructor on a 10 day spring outdoor leadership course in North Carolina. It is day 5 of your course and your first scheduled day of climbing. You are approximately 8 miles from the nearest roadhead. Katie Doe, a 19 year old female is half way up a 5.7 top-rope. She appears to be struggling with the crux move. She calls down to her belayer and reports feeling dizzy though she declines wanting to be lowered. After a few more clumsy attempts at the crux move she requests to be lowered down. By the time she reaches the ground she is complaining of numbness around her mouth and tingling in her finger tips. She has no relevant medical history, takes no medications and is allergic to poison ivy. At 11:30 AM her vital signs are:

LOC: Alert but anxious
HR: 96, strong and regular
RR: 28 and deep
SCTM: Flushed/warm/moist
BP: 124/P
CRT: <2 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems.

At 11:35 AM she appears to be having difficulty catching her breath, reports increasing tingling sensation in her extremities and is starting to have spasms in her hands and feet that cause them to curl inward. Shortly thereafter she passes out and ceases to breathe. She wakes up after about 15 seconds, gasping violently and complains of chest pain. At 11:38 AM her vital signs are:

LOC: Alert and extremely anxious
HR: 100, strong and regular
RR: 32 and gasping
SCTM: Flushed/warm/moist
BP: 120/P
CRT: <2 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems.

DEBRIEF POINTS CASE STUDY 1

This case study illustrates a classic progression of hyperventilation syndrome. Typical early signs and symptoms include dizziness and numbness and tingling around the mouth and in the extremities. If the hyperventilation is allowed to continue the patient may experience carpal pedal spasms, chest pain, and periods of apnea associated with a drop in level of consciousness. Treatment includes calming the patient down, educating them about what is happening and aggressively getting them to focus on their breathing pattern. Having the patient hold their breath may be helpful. Oxygen therapy is contraindicated. Evacuation is unnecessary, but emotional support is key.

CASE STUDY 2

You are an instructor for a college outing club. It's spring and your group is on a 10-day hike in the Escalante Canyon of Utah. You are on the third day of the trip and have just descended into the canyon to camp amidst the blooming Cottonwoods. You are about five miles from the closest trailhead, which is 20 dirt road miles to the closest town. Suddenly a student runs up to relate that his tent mate, Betsy Doe, a 21 year-old female, is having a hard time breathing.

At 5:00 PM you find Betsy in obvious respiratory distress. She is sitting up on a log, arms bracing on her knees. She is extremely anxious and between breaths she tells you this came on over the last 30 minutes while setting up camp. She coughs severely occasionally and her breath sounds show bilateral wheezing. She seems to have a harder time getting air out than in. She has a history of asthma, well-controlled by Proventil inhaler and hay fever. Vital signs are:

LOC: Alert but anxious
HR: 108 and regular
RR: 30 and labored
SCTM: Pale/cool/moist
BP: 140/P
CRT: 3 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems.

At 5:15 PM, after using her inhaler as directed, the Betsy's breathing has become easier. Wheezes are still present bilaterally. She is still anxious and sitting upright. Betsy states she had a bagel and trial mix at 3:00 PM and has consumed three liters of water over the last eight hours. A second physical exam is unremarkable. Vital signs are:

LOC: Alert and anxious
HR: 92 and regular
RR: 24 and labored
SCTM: pale/cool/moist
BP: 132/P
CRT: 3 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems.

At 5:30 PM, Betsy appears sleepy and is making little effort to breathe. The wheezes have diminished. The patient is speaking in one-two word clusters only. Vital signs are:

LOC: Awake but disoriented
HR: 140 and regular
RR: 30 irregular and shallow
SCTM: Pale/ cool/ moist
BP: radial pulse present

CRT: 4 seconds
Pupils: equal and reactive
Please list your current assessment, plan, and anticipated problems.

At 6:00 PM Betsy is alert but tired. She is breathing easily but there are still some slight bilateral wheezes. She states she thinks she could move slowly to the new Cottonwood free camp. Vital Signs are: LOC: Alert
HR: 92 and regular
RR: 20 and easy
SCTM: pale/ warm/dry
BP: 130/P
CRT: <2 seconds
Pupils: equal and reactive
Please list your current assessment, plan, and anticipated problems.

DEBRIEF POINTS CASE STUDY 2
Asthma is a common backcountry problem that can be triggered by a variety of environmental stimuli such as: cold, exercise, and pollens. Most mild asthma attacks can be managed with the patient's own inhaler, pursed lip breathing, aggressive hydration, and attempting to remove the patient from the stimulus. If an asthma attack worsens to the point that the patient is no longer making an effort to breathe and is exchanging very little air, administration of epinephrine is indicated. The epinephrine needs to be followed by the patient's own medications and hydration. In spite of the pollen stimuli, the administration of Benadryl is contraindicated in patients having an asthma attack due to its dehydrating effect. Any patient who receives an epinephrine injection needs to be evacuated and monitored for relapse.

CASE STUDY 3
You and your assistant instructor are leading a group of 12 college-aged students in Utah's Canyonlands. You are on the 5th day of a nine day trip and are 15 miles from the closest trailhead. The students are hiking in small groups today and you are waiting for them at the previously designated camp 5 miles from last night's camp. It is 3 PM.

As the students arrive in camp, one group states that James Doe, a 20-year-old male, fell while hiking striking the left side of his head on a rock with his frame pack hitting the back of his head. The incident occurred at 8:30 AM shortly after the hiking day began. The group states James lost consciousness briefly (a few seconds).

James states he felt dizzy and weak throughout the day, but was able to carry his own weight. He also states he has a headache and feels slightly nauseated. Patient exam reveals small bump (1 inch across) on his left temple. Patient denies pain and tenderness in the spine or any altered sensations distally. James also denies vision disturbances or vomiting.

James denies taking any medications except Seldane for his allergies. He ate a bagel, peanut butter, and a handful of trail mix for lunch, and drank 2 liters of fluid throughout the day. At 3:15 PM vital signs are: LOC: Awake and oriented
HR: 76 regular and strong
RR: 16 and easy
SCTM: Pale, warm, and moist
BP: 100/60
CRT: <2 seconds
Pupils: equal and reactive
Please list your current problems, plan, and anticipated problems.

James' vital signs remained stable throughout the night. He slept, but restlessly. At 7:00 AM vital signs are: LOC: Awake and oriented

HR: 64 regular and easy
RR: 12 and easy
SCTM: Pink, warm, dry
BP: 110/68
PUPILS: equal and reactive

In the morning, James is ambulatory and alert but complaining of dizziness, nausea and a slight headache. Please list your current problems, plan, anticipated problems.

DEBRIEF POINTS CASE STUDY 3

Head injuries often present significant challenges to outdoor trip leaders when deciding whether a student needs to be evacuated or not. A patient with a mild concussion may complain of dizziness, nausea, slight vision disturbances, headache, and weakness. None of these symptoms in and of itself is necessarily cause for concern. A patient who is unconscious briefly with signs and symptoms of a mild concussion may be allowed to remain in the backcountry, but needs to be monitored for a worsening head injury. Patients should be allowed to sleep, but woken up at 2 hour intervals to check for: increasing disorientation or a drop in level of consciousness, cyclical vomiting, seizures, worsening headache, ataxia, or the development of visual or speech disturbances. If any of these serious signs develop the patient should be evacuated from the field rapidly.

CASE STUDY 4

After a day of tough desert travel and map reading, Gretchen Doe, a 20 year old female and her 3 tent mates arrive at what they think is camp, though no one else is there. Gretchen was slightly nauseated during the late stages of the hike. The group eats a dinner of Mac and Cheese while waiting for the rest of the group to arrive. When no one arrives by dark. They consider they are in the wrong spot but hit the sack planning to find the correct spot in the morning. At 10:30 PM Gretchen awakes with pain in the epigastric region of her belly and vomits dinner. The pain is constant and dull, with episodes of cramping at midnight, 2 AM and 4 AM. She manages to get a little sleep in the early morning.

The next morning Gretchen is able to carry a light pack approximately 1 mile to the camp where you, your two other instructors and the rest of the group are anxiously waiting. She still has constant dull pain and dry heaves.

Upon examination you find her abdomen is soft and tender in all four quadrants but especially tender about midline in the upper two quadrants. Bowel sounds are present. Her bowel movements and urination have been normal. She has a history of ovarian cysts and surgery for the same but states this is different. Her appendix was removed a few years ago. She drank three liters of water yesterday, two cups of herbal tea, and one cup of tea this morning. Her last meal was Mac and cheese. So far the course has been stressful for her both physically and mentally. At 10 AM her Vital Signs are:

LOC: Alert but anxious
HR: 80 and regular
RR: 18 and easy
SCTM: Pale/cool/ wet
BP: 128/P
CRT: 3 seconds
Pupils: equal and reactive
Temp: 98.6 F

Please list your current assessment, plan, and anticipated problems.

DEBRIEF POINTS CASE STUDY 4
Many medical problems are the result of multiple contributing factors. Perhaps most common in a backcountry context are dehydration, hypothermia and poor hygiene. It may not be possible to specifically diagnose an illness in the backcountry, but we can use guidelines to help determine the severity of the problem. In the case of the abdomen evacuation is usually warranted for patients with: blood in their urine, vomitus, or stool; pain persisting more than 24 hours and specifically pain that is sharp or localized; a fever greater than 102F; nausea, vomiting or diarrhea that persists more than 24 hours; or signs and symptoms of shock.

CASE STUDY 5
You're leading a 26 day trip for sixteen, 14-15 year old boys in the Absaroka Wilderness of Wyoming. It is July and you are on the 15th day of the trip and are approximately 12 miles from the closest roadhead and 30 miles from the closest phone. You have a radio.

At 4:00 PM while holding onto a rock to descend to a foot ledge on a steep section of the trail, Matt Doe, a 14-year-old male, slipped and slid 45 feet to a wet grassy landing below. He landed feet first slipping onto his buttocks where he remained sitting. He did not hit his head or lose consciousness.

At 4:10 PM the patient exam revealed no tenderness in his neck or back, a swollen and bruised left elbow with no range of motion, pain on movement of the left wrist, and tenderness in the left lateral knee. Distal circulation, sensation, and motion are normal in all extremities .

Matt has no allergies, is taking no medications, and has no past relevant medical history. He has had 2 liters of fluid while hiking and no food since breakfast. At 4:10 PM his Vital Signs are:

LOC: Awake and oriented
HR: 96 regular and strong
RR: 24 regular and shallow
SCTM: pale, cool, and moist
BP: 130/70
CRT: 2 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems.

At 6:30 PM Matt is calm, warm and fed. A second examination reveals no pain or tenderness in his neck or back, his elbow is bruised and swollen with no range of motion, and his knee is minorly swollen with good range of motion. Distal CSM remains normal in all extremities.

LOC: Awake and oriented
HR: 72 regular and easy
RR: 16 and easy
SCTM: pink, warm and dry
BP: 118/68
CRT: <2 seconds
Pupils: equal and reactive

Please list your current assessment, plan, and anticipated problems

DEBRIEF POINTS CASE STUDY 5
The ability to rule out a spinal injury is a valuable tool for outdoor leaders and can make the difference between walking or carrying someone out of the backcountry. To rule out a spinal injury patients must: be reliable and well

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oriented with no major distracting injuries; have no pain or tenderness anywhere in their vertebral column; and have normal circulation, sensation and motion in all four extremities. It may be prudent to wait 2 hours and reassess patients for the onset of symptoms if there was a significant mechanism of injury. All patients who show indications of a spinal injury need to be fully immobilized and evacuated in a rigid litter or on a backboard.

OBJECTIVES BASED PROGRAM PLANNING FOR OUTDOOR RECREATION

By

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ABSTRACT: This paper outlines a planning process to develop objectives based outdoor recreation programs. Objectives based programs are "designed and structured to achieve specific objectives and purposely tailored to the unique characteristics of a carefully defined target market". Program objectives are established based on the organizational needs of the supporting institution, in this case the United States Air Force. The planning process can be applied as well to university, municipal, or any other outdoor recreation program supported or enabled by a host organization.

BACKGROUND: The profession of outdoor recreation management has evolved over the years and changes in program planning should reflect that evolution. Originally, we focused on managing facilities and equipment. The early days of Air Force outdoor recreation were characterized by taking care of parks, pools, recreation areas, and equipment check-out operations. We expected customers to already possess outdoor leisure skills. To borrow a line from the movie *Field of Dreams* - "If you build it, they will come."

The first major transition was to shift our focus from managing facilities and equipment to managing activities. Generally, we'd offer any activity we had the staff, knowledge, and equipment to safely manage. It was a "cafeteria" approach to outdoor recreation programming. Some were popular successes and some we dropped after a couple tries.

The second management shift began in the last few years and continues to gather momentum. Instead of simply planning and conducting activities, emphasis is placed on "managing the customer's experience." The roots of this transition are found in the application of modern marketing techniques to recreation management. Starting with a good understanding of our customers and then tailoring our activities to satisfy their needs and desires is a basic "marketing" recipe for program success. Lacking from many programs, however, is the careful attention to detail that allows us to shape and deliver an outstanding "customer experience." That's where Objectives Based Program Planning techniques can help.

WHY BOTHER WITH OBJECTIVES BASED PROGRAM PLANNING?: In a nutshell - accountability. We're entrusted with either the tax-payers money or money that comes out of the pockets of Air Force members and their families. Both are scarce resources and deserve the maximum "return" on their use. Force draw-downs have left a smaller Air Force and a smaller Air Force, in turn, requires higher levels of readiness. Our forces have to be physically and mentally prepared at all times to undertake whatever mission is placed before them. Frequent deployments and temporary duty assignments place greater stress on military families. Congressional, Department of Defense (DoD), and senior Air Force leaders all expect more from the appropriated (APFs) and nonappropriated funds (NAFs) invested in "quality of life" programs. Local Services Commanders and Directors, juggling competing financial pressures, are looking hard at programs that don't clearly provide combat support or

community service. In short, we must either directly support the mission, the people who perform the mission, or their families.

THE OBJECTIVES BASED PROGRAM PLAN: How best to develop objectives based programs is up to you, but Appendix 1 provides a template that covers all the elements of a good plan. Feel free to use it as-is or modify it in any way you see fit. If you've had any marketing classes or training, some of the key points should be familiar. Sound marketing principles are the foundation for the objectives based program plan. Providing a satisfying customer experience is a goal common to both Air Force outdoor recreation programs and successful commercial enterprises. The key differences in objectives based program planning is how we define the "customer" and the customer's "needs".

THE BIG PICTURE & THE ULTIMATE CUSTOMER: Why should the Air Force spend nearly $50 million per year in APFs and NAFs on the outdoor recreation program? What's the pay-back & who benefits from the program? Ultimately, we work for the Air Force as an institution. Just like any customer, the Air Force has specific needs that it wants met through various programs and activities - outdoor recreation included. Let's consider the kinds of organizational needs the Air Force has that outdoor recreation can address. A good starting point is to review Outdoor Recreation's mission, vision, and goal statements from Air Force Manual 34-233:

Mission

Provide safe, expertly managed outdoor recreation programs that foster family and individual well-being, unit cohesion, and fitness.

Vision

Professionally trained outdoor recreation managers providing single point access to information, equipment, and diverse, environmentally sound programs that showcase local natural resources.

Goals

Introduce people to the diversity, values, and benefits of outdoor recreation activities.
Teach appropriate attitudes, behaviors, and skills for these activities.
Organize and **lead** safe and satisfying outings, activities, and programs.
Provide information, referrals, equipment, recreation areas, and facilities for individuals and groups interested in outdoor recreation.

The Mission statement sums it up pretty well. The Air Force expects us to deliver programs that take care of individuals and families, both physically and mentally, and help build effective work units. If your outdoor recreation program doesn't do those things, its value to the Air Force is questionable.

There's a wealth of literature and research that describes the benefits of outdoor recreation to individuals, families and organizations. (A good compendium is Benefits of Leisure, 1991, edited by Driver, Brown & Peterson, Ventura Publishing, Inc., State College PA, ISBN 0-910251-48-7) While this paper is too short to go into detail, let's examine some key areas where outdoor recreation can make significant contributions to the Air Force.

A number of research studies have documented that outdoor recreation is very good for families and that family well-being is the key to retaining high quality men and women in the Air Force. From these studies, a number of significant family benefits of outdoor recreation emerge. They include family bonding, marital success, socialization of children, development of rituals and family history, and closer parent-child relationships. Outdoor recreation programs can be developed that meet the needs of the entire family and sub-groups like couples, parent-child, and children and teens. As we'll see later, it's important to fully define the "target market" when developing programs to support family well-being.

One of the cornerstones to the success of a military organization is unit cohesion. Members of a unit must work together to achieve their objective, during war or peacetime. Outdoor recreation can offer some powerful opportunities to support commanders' efforts to shape effective military organizations. Cooperative activities can be structured to require each member to assume a share of the groups' burdens and responsibilities and coordinate their actions. Competitive activities can generate healthy rivalries between groups and increase group pride which carries over to the workplace in the form of increased productivity. Challenge activities put the group in an unfamiliar and stressful (carefully controlled, of course) situations where working beyond perceived individual and group limitations and situational leadership skills are the keys to success. Some activities are beneficial because they simply allow units to relax, have fun, and get to know each other better.

Physical fitness (cardiovascular condition, muscular strength, & flexibility) are clearly important to the success of military operations. Air Force personnel must maintain fitness standards in order to remain part of the military. Responsibility for physical fitness does not fall solely to the Fitness and Sports Center. Outdoor activities offer alternatives to indoor workouts and help people stick with their personal fitness programs. Many activities, like walking, cycling, and cross country skiing, are easy on bones and joints and suitable for people of all ages and initial fitness levels.

In many ways, the Air Force is a distinct community and outdoor recreation can help maintain a healthy level of community cohesion. Just like when addressing family needs, it's important to clearly define the "target market" when developing programs for the "community". Some of the potential community "sub-groups" include housing areas or dormitory groups, the entire on-base population, the surrounding local community, and military retirees. Each sub-group may have unique community needs or desires that can be addressed through creative outdoor recreation activities.

Outdoor recreation can also enhance an individual's general quality of life. While these benefits are harder to quantify, they can be very important to individual well-being. Time to relax, reflect, and recreate is vital to mental health and outdoor leisure pursuits or hobbies can lead to a sense of mastery and improved self-esteem.

WHY? - OBJECTIVES, OUTCOMES, & BENEFITS: Why do we offer a particular activity? Is it just because it's popular or profitable? For commercial operations, the "Why?" of a program is pretty simple - make a profit. While financial management is important, our programs must provide the Air Force more than just a steady source of revenue. Keep the "Ultimate Customer" in

mind when establishing the overall objectives for a program. If we don't deliver programs and services that meet the institutional needs of the Air Force, Department of Defense, Congress, and taxpayers in turn, prepare to become completely self-sufficient with no appropriated fund support.

How do you know what the Air Force "needs"? Ask the people who are close to the problems. Squadron commanders and First Sergeants are always concerned with their unit's morale and effectiveness. Talk with the Fitness and Sports Center and Health and Wellness Center staffs if you want to know if your base needs more fitness oriented outdoor recreation activities. Go visit the housing office, chaplains, family support center, schools, and retiree affairs folks. Get to know everything you can about your base's mission and how well it's doing at the grass roots level.

Often these groups have empirical measures (the dreaded metrics) of problem areas. Try to establish some kind of "indicators of need". The indicators can help zero in on which areas need your attention first. Not only will having the numbers help secure support from your bosses, the indicators can also be used to gauge the effectiveness of your programs.

The first step in developing an objectives based program plan is to set the "*Key Objective*". What do you want the program to achieve? Examples might include "Help integrate new personnel into the work group", "Improve cardiovascular fitness", or "Help families establish social networks". Everything that follows should be based on this key objective.

Sometimes, a program can be designed to solve two problems at the same time. A program can have a *Secondary Objective* as long as it's compatible with the key objective. Examples include "Teach basic river recreation safety practices", "Generate $200.00 of net income", or "Showcase local family attractions and destinations."

Along with deciding what you want the program to achieve, it's a good idea to figure out how you'll determine if it met the key objective. That's where the concept of "Outcomes" can help. Outcomes are changes in the customers you hope will take place because of the program. Sometimes outcomes are easy to define and measure, like physical flexibility, and sometimes they're very difficult, such as improved inter-family communication. In this era of accountability, it's a good idea to measure the impact of your programs if possible. Sometimes it may not be worth the effort to define and measure program outcomes. Conducting detailed "exit" surveys or interviews may prove the program's impact but they eat up valuable staff time and customers may be irritated by the intrusion. You'll have to be the judge when to invest the time, energy, and money in measuring outcomes.

The "Benefits" of the program, while related to the concept of outcomes, are important to tailoring the activity and promoting it to potential customers. To help identify the program's benefits, look at things from the customer's perspective and try to answer the question: "What's in it for me?" They should be relatively straight forward and easily communicated through your promotional channels. Examples of benefits include excitement, relaxation, affordable, safe, meet new people, fun for the whole family, etc. Benefits should help explain why the customers should spend their precious time and money to participate in the program.

WHO? - ZEROING IN ON THE TARGET MARKET: After identifying the objectives we want our program to deliver, it's time to focus on the target market. The program's target market definition may begin forming during the objectives setting process. For example; perhaps the Commander or First Sergeant from the Transportation squadron indicated that recent personnel turnover has split the unit into the "old hands" and the "new kids" and it's becoming difficult to keep up with vehicle fleet maintenance goals.
The definition must be narrowed down so the program can be tailored to the specific characteristics of the target market. The more you know about the target market the easier it is to meet their needs. A little "pick & shovel" work spent defining the market's characteristics, preferences, and constraints can really pay off. Much could be written on these individual topics, but a brief overview will have to suffice.

Target market characteristics include socio-demographics like age, gender, education, family status, rank or grade, time on station, housing situation, etc. Some others to consider might be work, TDY, or deployment schedules. You'll have to decide which ones are meaningful to your program plans.

Preferences are also critical but are generally harder to identify or measure. Does the group like physically active programs or more laid-back activities. In which of activities do they currently participate? Are they short duration, single day, or multi-day? Is their recreation activity family-based or geared toward friends and coworkers? Do they like to get away from the base or stick close to home? The question is "What would appeal to this group?"

The last target market dimension to consider is constraints. These are the things that prevent or limit members of the target market from participating in the program. Common examples include work or time demands, money, family commitments, and transportation. Less obvious might be a lack of basic program skills, not knowing anybody to participate with, safety concerns, physical demands, or the lack of special equipment or clothing items. These items can kill an otherwise well-planned program.

Take a minute to look at Appendix 1 to see how we've carried the transportation squadron example through the "WHO?" stage. Turns out the real need is with the night shift and the night shift personnel have some specific characteristics, preferences, and constraints. Are these realistic examples? Could you find this information out? Yes!

WHAT? - DIGGING INTO THE OUTDOOR RECREATION BAG OF TRICKS: There are many ways to use outdoor recreation activities to meet different objectives. Even one activity can be modified to meet different objectives. Take canoeing for example. You could structure a canoe program to build muscular strength and cardiovascular fitness, provide couples a relaxing get-away, offer families time together, generate healthy inter-squadron competition, help youth build life-time recreation skills, and more. All it takes is a clear objective along with some imagination and creativity.

There are two criteria to meet when picking which activity to use: 1.) It must satisfy the key objective and any secondary objective and 2.) It must appeal to the customers. Other than that, the choices are almost limitless. Break the mold and try some new or different approaches to solving the needs of the Air Force.

Like baking cookies, the key to success is in the ingredients. Attributes you can alter include the amount of social interaction, how groups are established, what skill level the program is targeted for, how long the program will last, what kind of pace or intensity, how group leadership functions will be handled, kinds of equipment, allocation of group tasks like meals and clean-up, changes to standard game rules or totally new rules, etc. Again, the key is keeping focused on the objective and being highly creative. Nearly every part of a program can be altered to impact the objectives.

At this stage the program leaders and staff must be very involved in the planning process because they're responsible for running the program. If they don't understand the objectives and have a hand in tailoring the program attributes, chances are good the objectives won't be met.

HOW? - DELIVERY STRATEGIES AND RESOURCES: There are six basic strategies to satisfying customer demand for an activity:

Referral. Your program staff must be prepared to answer customer's questions about local outdoor recreation opportunities. This is a good approach when the program doesn't have the resources to provide the activity or the customer base is properly skilled and already has the necessary equipment.

Self-directed. As the United States became a highly urbanized population over the past decades, this method's ability to generate participation declined. Examples of this method include providing recreational equipment for checkout and developing recreation areas. It's successful only if the customer base is already skilled.

Facilitation. Many in the Air Force community haven't had opportunities to develop outdoor recreation skills or are unaware of the many different activities available. The facilitation approach attacks these barriers to participation by offering awareness, interest, and entertainment programs and conducting basic instructional classes. The goal is to help the customer get started.

Contract services. Consider this approach if staff levels, staff skills, or lack of equipment prevents offering a particular activity.

Cooperative programming. While similar to contract services, this method is more of a joint effort with another organization. It's particularly suitable if you have adequate staff levels, staff knowledge, and equipment, but require additional outside expertise or resources. University outdoor recreation programs, local clubs, or even other military installations can make great partners.

Direct provision. An in-house approach can provide outstanding customer service and generate the best financial returns. It can be expensive because it requires adequate staff levels, experienced and fully qualified personnel, and all the necessary equipment. This method offers additional advantages such as building stronger customer loyalty and enhancing a program's reputation.

Each strategy lends itself nicely to different objectives. For example, most folks already know how to ride a bicycle. Simply making it easy to check out a bike for a lunch hour ride, (the self-directed strategy) is an easy way to help enhance physical fitness. The strategy you pick depends on the resources (staff, expertise, equipment, etc.) available and the program's objectives.

WHERE & WHEN? - NAILING DOWN THE DETAILS: If you remember anything from Marketing 101, the next steps will be familiar. Now that we defined the "product", let's look at the rest of the "Four P's" of Marketing: Place, Price, and Promotion.

The concept of "place" incorporates not only the physical "where" but the time component of "when". The first step is to select an appropriate setting. Don't pick an actual place yet. Define the location characteristics that offer conditions that 1.) best meet the program's objectives, and 2.) appeals to the target market. For example, a river with Class IV rapids is unsuitable for a program for families with young children. Once you've defined the ideal setting, try to match those characteristics with real world places. The more you know about local natural resources the easier it is to pick the place that best fits the program and market.

After selecting "where", it's time to consider "when". Don't forget the objectives and market. Which day or days of the week are best? Are certain times of the day better for this market? Does the time of year, season, or month matter? Are there any scheduled mission tasks, exercises, or deployments that need to be considered? Are other Services activities or programs planned that target the same group and may reduce participation? Don't forget holidays and school schedules when programming for families. Payday cycles can also be important to consider when setting program dates.

The cold, hard, financial realities come next. The key elements you must identify are the program's expenses, minimum head counts, expected head counts, maximum head counts, and program fees. Like other decisions, the program fees must be viewed in light of the objectives and target market. Once all these items have been nailed down, it's easy to calculate expected net income (positive or negative).

The last of the marketing Ps, Promotion, can make or break a program, so put plenty of thought into developing the promotional plan. Figure out how best to get information to the target market. Some folks don't read the base paper or throw away flyers without reading them. Try to find the most direct way of putting your promotional materials in the hands of the target market. Establish a timeline for when the promotional pieces must be completed and delivered. Creating the actual promotional materials usually involves writing "copy". Writing good promotional copy for an article, ad, direct mail, or flyer isn't easy. The challenge is to communicate the program's benefits (what's in it for the customer) and eliminate the constraints (defuse the "why nots") with a minimum of words. Good copy makes use of "loaded" words, which convey a big concept with a one word, like exciting, affordable, new, improved, certified, relaxing, remote, easy, etc.

WELL? - FEEDBACK AND LESSONS LEARNED: Even after executing a flawless plan, we're not finished. The last step is to "close the loop" and collect and analyze program feedback. The feedback must come from both customers and staff.

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Customers: Hopefully, you remember our earlier discussions and are thinking "Which customers?" Start with the immediate customers, the ones who participated in the program. If you identified key outcomes, be sure to try and identify any changes. How to collect this information is up to you. Common examples include comment cards or evaluation forms, informal discussions immediately afterwards, follow-up phone calls or mail-outs, and random surveys. Try not to burden customers with a lot of paperwork, it tends to end what may have been a terrific, exciting program on a "serious" note. Remember those "indicators of need" from before? Here's where they are useful again. Go back to the source of the indicators and see if they've changed. It may take time for the indicators to register a change.

Staff: Staff input can be more valuable than the customer's in figuring out how to improve the program. Their "behind-the-scenes" perspective can spot logistical or technical glitches that customers don't notice. Don't forget to have your staff evaluate the "soft skill" areas, too, including their own performance. The evaluations have to be done almost immediately after the activity or the staff will get wrapped up with the next program and forget what just happened.

Write it down and use it: Carefully collected and analyzed feedback is meaningless if it isn't put to use. That means writing it down. Keep it simple. What did the feedback tell you (lessons learned) and what will you do different next time (improvements)? Don't forget to write down the results of the financial feedback as well! Would you change the fees? Having all this information written down on the Objectives Based Program Plan, will make it much easier to get ready next time.

WHEN TO APPLY THE OBJECTIVES BASED PROGRAM PLANNING PROCESS: Do you need to go through this process for every program you do? Probably not, but make sure that your chain of command, particularly those who control the financial and manpower resources, understand how outdoor recreation programs support the mission and community. Some programs, like swim lessons, obviously support the community and can easily be written up using the Objectives Based Program Plan format. For these programs, don't spend a lot of time on detailing the target market or digging up supporting documentation. The important point is to describe how the program's objective supports the mission or community.

The more closely your programs are tied to the mission and community, the more important outdoor recreation becomes to the support group and installation commander, Major Commands, and the Air Force. The case for supporting outdoor recreation is not made at the Air Staff, it's made at the installation level, one program at a time. The Objectives Based Program Plan can help you make the case to your chain of command, and to others outside the chain, that outdoor recreation is a vital component of the Services' program.

Appendix 1: SAMPLE OBJECTIVES BASED PROGRAM PLAN

WHY?
What's The Program's *Key* **Objective?:** *Help integrate new personnel into work group*

What Are The Program's Secondary Objective(S)?: *Teach basic river recreation safety practices*

What Are The Desired *Outcomes* **For The Customers?:** *1.) Work groups function more effectively to achieve group goals. 2.) Group demonstrates basic river safety practices including proper PFD selection & fitting and recognizing and avoiding common river hazards.*

What Specific *Benefits* **Will The Program Provide?:** *Get away from base, relax, good value for money, skilled trip leaders*

WHO?
Who's The *Target* **Market?:** *Transportation squadron, vehicle maintenance night shift*

What Are Their Significant *Characteristics?:* *80% unmarried, 50% live in the transportation dorm, 95% male, rank is generally below E3, time on station split between less than 6 months or over 2 years*

What Are Their Particular *Preferences?:* *Would like to get away from base on weekends, currently enjoy mostly individual and sedentary activities like listening to music, watching TV or movies, or playing video games*

What Are Their Particular *Constraints?:* *Night shift work, lack of outdoor recreation skills & equipment*

How Do You Know They Need Or Want A Program With The Objectives, Outcomes, And Benefits Described Above?: *Discussions with Major Lewis, Transportation Squadron Commander and SMSgt Wright, First Shirt, data from personnel office and housing manager, squadron recreation interest survey*

WHAT?
What Program Will Meet Your Objectives And Appeal To The Target Market? *Rafting trip*

What Critical Program *Attributes* **(Interactions, Skill Levels, Challenges, Pace, Etc.) Will Tailor The Program To The Target Market?** *Use paddle rafts, mix new & older personnel, rotate positions frequently, build in raft "races" and other low-level competitive activities, get group to select lunch menu, lunch prep to be done on-site, low physical demands on a moderately challenging river*

HOW?
What *Delivery Strategy* **Will Be Used?:** *Will use in-house resources*

Why Was This Particular Strategy Selected?: *Provides maximum control of group interaction and ensures river safety topics are covered*

What Additional Resources (Staff, Training, Equipment, Etc.) Are Needed Before The Program Is Offered?: *Need an additional 60 quart cooler to replace the one trashed at the navigator graduation picnic*

WHERE AND WHEN?

Where Will The Program Be Held? *West branch Big Creek*

> **How Does That Location Further Your Objectives Or Appeal To The Target Market?:** *Moderate current but requires frequent maneuvering, mostly Class II water with two straight Class III runs*

When (Date & Time) Will The Program Be Held? *Saturday, 27 June: Depart base @ 1200, make camp at Big Sandy campground @ 1600; Sunday, 28 June, get on river @ 1000, off river @ 1600, return to base @ 2000*

> **How Does The Date Or Time Further Your Objectives Or Appeal To The Target Market?:** *Allows night shift personnel to grab some sleep before later departure on Saturday, trip sign-up the week before timed to pay day*

What Are Your Anticipated Fixed And Variable Costs? *Staff $140.00, Campground $60.00, Gas $80.00, Food $200.00, Camping gear $100.00, Supplies $20.00 Total $600.00*

What's The Minimum, Expected, And Maximum Number Of Customers For This Program? *12, 20, 36*

How Much Will You Charge For This Program? *$40.00*

> **How Does That Fee Further Your Objectives Or Appeal To The Target Market?:** *Holds cost down for mission support program, helps build repeat business from new personnel*

What Methods Will Be Used To Promote This Program? *Presentation to squadron personnel, direct mail through RecTrac!, & a flyer for each member of night shift*

Given The Target Market's Characteristics, What Key Benefits Or Concepts Should Promotional Materials Try To Communicate? *Targeted just for the night shift, it's a bargain @ $30.00, no hassle get-away, kick-back and relax around the campfire, food included, perfect river for first-time rafters*

When Must Key Promotional Tasks Be Completed? *Materials completed by April 30, direct mail through RecTrac! sent by 15 May, personal presentation on 2 June*

How Could Commercial Sponsorship Be Used To Enhance This Program? *N/A*

WELL?

How Was Customer Feedback Collected And What Did It Say? *Group discussion on ride back to base found customers loved the program & would recommend to friends, want a winter night-shift program, hated the bugs, thought the bagels were stale & pastries got mashed. Follow-up with Major Lewis & SMSgt Wright indicated the night shift did better on fleet maintenance goals for July and morale is better.*

How Were Staff Evaluations Collected And What Did They Say? *Standard written staff evaluation. form, water fights tended to escalate with this group, electric pump didn't work - had to use manual pumps, several cases of minor sunburn*

What Will Be Done Differently The Next Time This Program Is Offered? *Buy more (6 oz) pasta per person, bring back up electric pump, make sure staff keeps water fights under control, keep an eye on food duffel & protect it, brief customers to bring insect repellent and sun screen*

OUTDOOR RECREATION HAZARD ASSESSMENT AND MANAGEMENT PLANNING

By

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ABSTRACT: Outdoor recreation programs can be hazardous to our customers and staff members. However, these hazards can, to a large extent, be identified, evaluated, and managed to reduce the chance they will occur and lessen the severity of their impact if they should. The key is careful planing and a consistent approach by outdoor recreation managers, staff members, trip leaders, volunteers, and customers. This paper describes a process for developing hazard assessment and management plans for individual outdoor recreation programs and activities. The process is based on three Hazard Assessment And Management Worksheets. This paper takes a case study approach to discuss each of the three worksheets and complete the sample worksheets provided in Appendix 1.

ONLY ONE PIECE OF THE PUZZLE: The concepts presented in this paper do not form a complete risk management plan. The aid doesn't discuss important topics like staff training and certification, incident and accident reporting procedures, control of blood borne pathogens, first aid kit management, pre-trip briefings, equipment and clothing checklist, emergency response plans, or allocation of risk documents like waivers, assumption of risk forms, or hold harmless agreements. We will, however, highlight where the hazard assessment and management planning process does "bump up against" these related risk management issues.

CARDINAL RULE OF OUTDOOR RECREATION PROGRAMMING: *If you can't run the program safely, don't run the program at all.* Will you be able to eliminate all risks? No. Will incidents, accidents, or injuries occur? Yes. The issue is one of taking *reasonable* precautions to reduce the likelihood and severity of hazards. That's what this paper covers. It will help you provide activities that achieve the Mission of the Air Force Outdoor Recreation Program:

Provide safe, expertly managed outdoor recreation programs that foster family and individual well-being, unit cohesion, and fitness.

THE IMPACT OF STAFF TURNOVER ON PROGRAM SAFETY: Staff turnover, including volunteers, can have positive benefits. New team members bring new program ideas, insight into how other programs do things, new skills and expertise, and require managers to stop and focus on safety issues during the staff training process. However, high rates of turnover, common in our business, makes it difficult to ensure all staff are "up to speed" on hazard management practices for all of the activities we offer.

Staff training can eat up large amounts of precious, and in the case of paid staff - expensive, time and energy. Some outdoor recreation directors have developed their own standardized training system to help new staff members

learn the established hazard management practices. The process covered in this paper presents a method that can be included in outdoor recreation staff training programs at all Air Force installations. Adopting these techniques will, in the long run, reduce training time and costs at all locations as our outdoor recreation staff and volunteers move from base to base throughout the Air Force.

COMPLETING THE HAZARD ASSESSMENT AND MANAGEMENT WORKSHEETS: Take a couple minutes to review the format of the worksheets in Appendix 1. Notice that it has a general information section and then three distinct parts. We'll cover the general information section and each part in detail.

GENERAL INFORMATION SECTION: Each activity has its own unique set of hazards, so complete a worksheet for each activity you currently offer and before a new activity is added. You may be wondering about variations of an activity. Take canoeing or bicycling for example. Back-country or wilderness canoeing is different than running white-water which is different from paddling around the local lake or floating down a lazy river. Likewise, mountain biking is different from extended, loaded touring which differs from day trips and shorter rides. If the mix of hazards differs significantly, complete a worksheet for each "variation". Ultimately, you're the judge.

The location or setting of an activity may also present unique hazards. Generally these present themselves as environmental hazards although specialized equipment, physical demands, and required skills can add to the hazard mix. Again, your professional judgment will determine if a separate worksheet is needed for a specific location.

The last item in the general information section allows you to accommodate seasonal differences in the hazard mix. Winter camping in Montana is very different from summer camping in Arizona! Like locale, changes in the hazard mix generally present themselves as environmental hazards although specialized equipment, physical demands, and required skills can also alter the mix. Again, it's your call if a separate worksheet is needed for different seasons.

For our example, we'll complete a worksheet for Mountain Biking, in the Texas Hill Country State Natural Area (THCSNA), during August. (Yes, August is a dumb time to mountain bike in the rugged Texas hill country, but it makes for a great example.)

PART I - HAZARD IDENTIFICATION: Completing Part I is an exercise in pessimistic brainstorming. Key staff, trip leaders and program volunteers can, and should help identify the universe of hazards for the given activity, locale, or season. Take advantage of slow periods to gather the staff together for a game of "worst case scenario". It may be helpful to imagine your worst nightmare of a customer: Mr. Aksi Dent Prone. Everything bad that can happen, happens to this person. (Anyone who leads outdoor trips has probably had Mr. Prone or a close relative in their group.) Make the hazard brainstorming session fun. Borrow from the misadventures of Mr. Bill (Ohhh, Noooo!) the old Saturday Night Live character. Now is the time to fire up the imagination and joke about hazards, problems that turn up in the field are seldom funny. The goal is to come up with all possible hazards, everything

from killer bees to icebergs. Don't rule anything out at this point. Let's take a look at some of the hazards presented by our fictitious mountain biking trip:

A. Environmental Hazards: Sometimes it seems that Mother Nature has it in for us. (Maybe it's payback.) This section of Part I is used to list all the natural and manmade hazards presented by the location or setting for the activity. Thorny or poisonous plants, dangerous insects, arachnids, reptiles, fish, mammals, or sea life are all common examples. Giardia and other water borne diseases could be included here as well. The weather can cause its own range of problems like hypothermia, hyperthermia, sunburn, and lightening strikes. Rugged terrain, rapids, rip currents, undertows, very cold water, avalanches and other location specific hazards should also be identified.

For our example, the old Texas saying that everything here either stings, bites, or scratches applies. There are a number of hazardous plants and animals in the THCSNA everything from rattlesnakes and scorpions to thorny cactus and mesquite trees. Surburn, dehydration, and hyperthermia are potential weather hazards, particularly in August. The terrain in the THCSNA is very rocky and rugged with steep hills. Loose rock, sand and gravel are common on some trails. Cattle guards, common in Texas, can be very dangerous on a bicycle.

B. Equipment Hazards: While outdoor gear is designed to enhance the recreation experience, it sometimes includes its own set of hazards. Use this section to list all the bad things that could happen that's related to the "stuff" we use. To stimulate the brainstorming process, the equipment hazards are broken into transportation, routine gear, and cooking categories. A significant number of injuries and accidents occur in transit and around the cooking fire or stove. While these kinds of hazards may not be unique to a particular outdoor recreation activity, its important not to overlook them.

Since the THCSNA is used by horseback riders and hikers, and cattle roam freely through the area, collisions between cyclists and these other users can be a problem. (These "critters" could have been listed in Part I under animal hazards but since the problems only occur while moving, they seemed to fit better under the transportation category.) Given the trail conditions in the THCSNA, tire blowouts and flats are likely to happen.

C. Skill and Behavior Hazards: The human factor plays a big role in most incidents and accidents. Unfortunately, human behavior is hard to predict or quantify. Past experience will probably provide the list of problems or hazards that should be included in this section. Like the previous hazard sections, this one is broken into sub-categories to help prevent overlooking potential problems. Physical demands are focused on the human body, independent of the mind. Skill level demands, on the other hand, target knowledge and technical capabilities - the "know-how" kind of stuff. Lastly, human beings, especially in groups, may engage in behaviors that present additional hazards. Most of the "bad judgment - knew better" kinds of hazards fall into this category.

Hard mountain biking in Texas in August requires cyclists be properly acclimated or they will suffer heat related problems and the THCSNA is no place for out-of-shape beginners. Good bike handling skills are also required. Lastly, mountain biking can bring out the "Bozo" in some riders. The excitement and adrenaline can override good judgment, trail manners are forgotten, and pretty soon folks are hot-dogging and trying to out do each other.

PART II - HAZARD EVALUATION: Once the hazard brainstorming phase of Part I is over, it's time to get a bit more analytical. The second part of the planning process involves rating each hazard on two dimensions: 1.) How likely is the hazard or incident to occur and 2.) How severe are the consequences if it does. (This evaluation approach parallels items the courts will consider in judging if you took reasonable or prudent actions to protect your customers.) Part II provides a matrix, with likelihood across the top and severity down the side. For each hazard listed in Part I, you simply decide if the likelihood is probable, possible, or remote; and if the severity is minor, serious, or fatal. Your professional judgment and experience will shape your ratings. Once you've settled on the ratings, write the hazard in the appropriate block in the matrix.

The blocks in the matrix are numbered in priority of concern. We should clearly worry more about hazards that are considered probable and fatal than ones that are remote and minor. In this matrix, likelihood gets slightly more weight in determining priority. That explains why the probable/serious block was ranked number 2 and the possible/fatal block got number 3. If you think severity should take precedence, feel free to renumber the blocks in the matrix. As a general rule, if you have anything listed in Block 1 (Probable/Fatal), you may want to reconsider offering the program.

Take a look at the Hazard/Incident Matrix for our bike ride found in Appendix 1. Falls were rated probable and serious and placed in Block 2. Sunburn and tire blowouts both ended up in Block 4, probable and minor. The rest of the hazards were distributed in Blocks 5-9

PART III - PREVENTION STRATEGIES, RESPONSE PLANS, AND OPERATION INSTRUCTION REFERENCES: Once you've identified the hazards and put them in priority order, the last step is to figure out what to do about them. That's what Part III is designed to do. Here is where you establish prevention strategies (how to reduce the likelihood) and response plans (what to do if they happen).

Start with any item listed in Block 1 in the Hazard/Incident Matrix and work your way through to the Block 9 items. Write in the Block #, list the prevention strategies, and then describe the response plans. Some prevention strategies and response plans, particularly ones addressing hazards that apply to many activities, may require extensive, detailed information. In these cases, a separate Operating Instruction (OI) may be a good idea. If there is an applicable OI, list it in the space provided.

Let's look at the examples in Appendix 1. Some items are easy to prevent, like sunburn. Others, like falls, require addressing individual skill levels, controlling group behavior, and protective equipment - helmets and gloves.

Likewise, some items (tire blowouts) require simple responses when they do occur, while others (dehydration) may involve more complex or specialized responses. In this example, there are a couple of applicable local operating instructions.

USING THE COMPLETED WORKSHEETS: After completing worksheets for your outdoor recreation activities, many other pieces of a comprehensive risk management plan begin to fall in place. Let's look at how the information in the worksheets can be used to help round out your risk management efforts:

Customer Equipment Lists: For almost every trip or outing the customers are expected to bring some, or all, of their own equipment or specialized clothing. Examples include water bottles, bike helmets, hiking boots, insect repellent, rain wear, or sun screen. If the item is listed in the hazard prevention strategies, it's very easy to simply add them to the check list or handouts you provide to folks signing up for the program.

Program Equipment Lists: The hazard prevention strategies and response plans will also identify equipment that you must provide. Spare equipment, repair parts, first aid kits and supplies, rescue gear, specialized gear for customer use (e.g. PFDs, climbing harnesses), survival blankets, and water are all examples of stuff we might need to bring along. Again, if the item has already been identified on the worksheet, its easy to build it into the program checklist.

Pre-trip and On-site Briefings: A lot of the information on the worksheet, particularly the prevention strategies, is very beneficial to our customers and should be included in the pre-trip and on-site briefings by the staff. Some of the information may be new information for beginners and will help them have a fun and safe experience. This information also lets customers know how the trip will be managed and lays out the "rules of engagement" or expected group behaviors. An honest pre-trip presentation on the potential hazards will help customers make informed decisions about participation. (Which leads us to the next topic!)

Allocation of Risk Documents: A good liability waiver will include a description of potential program hazards. The goal is to help customers make informed choices to voluntarily assume those risks. If the allocation of risk document doesn't include a description of the hazards, how can the customer decide to assume the risks or decline participation? (Likewise, how could the court find in our favor should we end up getting sued?) Trying to cover the waterfront by stating "You could get hurt or die" won't work either. Customers, particularly beginners, should be informed of potential hazards. Which hazards? Well, the lawyers would probably say all of the ones you've identified in the worksheet. For the sake of brevity, you could consider leaving out the Remote/Minor (Block 9) items. Again, your professional judgment is the guide. As always, get with your legal office and get them involved in writing and approving the final documents.

Staff Training: A good safety record is built on attitude and consistency. Outdoor recreation managers can reinforce the right attitude by stressing the importance of sound hazard management practices. Consistency, among staff, volunteers, and customers is reinforced by using standardized prevention strategies. Both of these efforts require staff training. The worksheets can be used for initial staff training and as a review or refresher prior to conducting the program. Everyone "singing from the same sheet of music" helps prevent confusion in the field.

Some of the prevention strategies and response plans involve technical (hard) skills and some require people (soft) skills. The hard skills are easier to verify but the soft skills may be more effective in preventing a problem from occurring. Staff training in group dynamics and leadership can go a long way to help mediate the individual and group behavior hazards. Helping individuals and groups use good judgment to make sound decisions that prevent problems is more than half the battle. An ounce of prevention is worth a pound of Wilderness Emergency Medical Technician.

IMPROVE, REVIEW, AND UPDATE: In the spirit of "Continuous Improvement", we must routinely strive to make our hazard management practices better. No system is perfect. If you have suggestions on improving the process and worksheets presented in this paper, please let us know! Send suggestions or comments on this hazard management model to HQ AFSVA/SVPAR, 10100 Reunion Place Suite 402, San Antonio TX 78216-4138, FAX DSN 487-2383, Commercial FAX 210-652-2383, e-mail HEEG@AFSVA5.AFSV.AF.MIL.

Likewise, review the worksheets before and after conducting a program. The "after" review is to ensure lessons-learned get promptly added to the worksheet for the next time. If the staff carries a copy with them during the activity (a very good idea), they can identify and evaluate new hazards as they come up. If possible they should also jot down any prevention strategies or response plans they think of at the time. Just be sure to update the "master worksheet" back at the office with these field notes afterwards.

Appendix 1: SAMPLE HAZARD ASSESSMENT AND MANAGEMENT WORKSHEET

Activity: *Mountain Biking, Day Trip*

Locale: *Texas Hill Country State Natural Area*

Season: *August*

PART I - Hazard Identification

A. Environmental Hazards

Plants/Animals: *Rattlesnakes, scorpions, fire ants, cactus, mesquite trees, poison ivy, cattle*

Weather: *Sunburn, dehydration, hyperthermia, lightning*

Terrain/Water Conditions: *Loose sharp rock, drops and cliffs, flash floods, rock overhangs, steep trails, cattle guard*

B. Equipment Hazards

Transportation (motor vehicles, horses, snowmobiles, boats, etc.): *Motor vehicle accidents en route, bike-horse-hiker-cattle collisions*

Routine Gear (scuba equipment, lanterns, climbing gear, backpacks, fishing tackle, etc.): *Tire blowouts, brake failure, chain failure, loose handlebars*

Cooking (stoves, propane tanks, etc.): *N/A*

C. Skill and Behavior Hazards

Physical Demands (Strength, endurance, aerobic condition, flexibility): *Proper acclimation to hot weather, moderate to excellent physical conditioning*

Skill Level Demands (critical tasks, prerequisite knowledge): *Hazards are primarily falls (skidding, diverting, stopping, and insufficient speed types), trip requires steep trail descent, handling loose trail surfaces, and use of body weight when braking*

Individual & Group Behaviors (fatigue, alcohol & drugs, peer pressure) : *Failure to stop for water and cool down, crashes from "Hot-dogging" & speeding on "blind" trails*

PART II - Hazard Evaluation

Place <u>each</u> of the hazards identified in Part I in the appropriate block of the following matrix:

HAZARD/INCIDENT MATRIX

SEVERITY	LIKELIHOOD: PROBABLE	LIKELIHOOD: POSSIBLE	LIKELIHOOD: REMOTE
FATAL	1.	3.	6. *Rattlesnake, hyperthermia, lightning*
SERIOUS	2. *Falls*	5. *Mesquite trees, dehydration, crashes*	8. *Flash floods*
MINOR	4. *Sunburn, tire blowouts*	7. *Fire ants, cactus, poison ivy, cattle, brake & chain failures*	9. *Scorpions, motor vehicle accidents, collisions*

PART III - Prevention Strategies, Response Plans, & Operation Instruction References:

Block #: 2 **Hazard/Incident Description:** *Falls*

Prevention Strategy: *Don't take beginners to THCSNA, wear helmets and gloves, select trails that progress in difficulty, conduct descent and braking mini-clinic, maintain rider spacing on trails, point out cattle guards and demonstrate how to cross them*

Response Plan: *Administer appropriate first aid, bring bicycling trail first aid kits and extra wound cleaning supplies*

Applicable Operating Instruction(s): *See ODR-OI-3, Near Miss, Incident, and Accident Reporting*

Block #: 4 **Hazard/Incident Description:** *Sunburn*

Prevention Strategy: *Wear protective clothing, apply sunscreen to exposed skin, limit time in sun*

Response Plan: *Get out of sun, apply topical anesthetic, monitor for other heat related conditions*

Applicable Operating Instruction(s): *See ODR-OI-15, Staff Primer on Sunburn, Frostbite, Dehydration, Hyperthermia, and Hypothermia*

Block #: 4 **Hazard/Incident Description:** *Tire blowouts*
Prevention Strategy: *Use Mr. Tuffy's in rental bikes, air up tire to reduce pinch flats*

Response Plan: *Bring extra tubes (3), patch kits, pumps, tire levers*

Applicable Operating Instruction(s):

Block #: 5 **Hazard/Incident Description:** *Mesquite trees - Face and Eye Injuries*

Prevention Strategy: *Show a mesquite tree and thorns, wear eye protection and helmets, discuss warning other riders of trail side tree hazards*

Response Plan: *Apply appropriate first aid*

Applicable Operating Instruction(s): *See ODR-OI-3, Near Miss, Incident, and Accident Reporting*

Block #: 5 **Hazard/Incident Description:** *Dehydration*

Prevention Strategy: *Everyone drinks water before hitting the trail, each rider carries at least one large water bottle, top off all water bottles at start of ride, provide water breaks at least every 30 minutes, everyone drinks water and refills bottles at lunch break, water available at end of ride*

Response Plan: *Get victim out of sun and heat if possible, administer water, monitor for other heat related conditions*

Applicable Operating Instruction(s): *See ODR-OI-15, Staff Primer on Sunburn, Frostbite, Dehydration, Hyperthermia, and Hypothermia*

What Is the Message in the Medium? Mixed Signals for National Park and Wilderness Users

By

Dr. Michael G. Huffman and
Dr. James E. Fickle
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For years variegated experts and assorted scolds have been warning us that our natural areas are in danger of being, as the cliche puts it, "loved to death." To be sure, human visitation in national parks, forests, wilderness areas, and other assorted public lands has multiplied dramatically during the past two decades. It is true that many of our natural areas show evidence of overuse and careless or irresponsible treatment that threatens the resources as well as the opportunity for our descendants to enjoy them in the future. It is also true that many people are injured and a lot of money and effort expended on search and rescue missions and emergency medical services as the result of irresponsible visitor behavior.

Most experienced and regular users are familiar with the proper rules and procedures to be followed in order to protect the resources and recreate responsibly. Backpackers generally are familiar with the tenets of minimum impact or no trace camping. Snowmobilers and dirt bikers realize that they should leave marked trails only in designated areas. Rafters, kayakers, and canoeists understand that they should not introduce pollutants into the waters. Experienced climbers are keenly aware of the importance of safety procedures and environmental responsibility.

The steady user of outdoor areas is likely to be interested enough in the resources to consume safety and environmental information from a variety of responsible sources, including government brochures and publications, as well as popular books and magazines such as Backpacker, Outside, Snow Country, or others among the multitudinous publications devoted to outdoor activities. Many also belong to environmental or activity organizations such as the Sierra Club, the National Parks and Conservation Association, the Mountaineers, and others too numerous to mention. Certainly there are some experienced outdoor enthusiasts who act irresponsibly, but we believe that the greater threat is posed by the occasional and/or inexperienced user.

The inexperienced or occasional user is frequently a person who is lured into the wilderness, onto the rocks, into the rivers, not by the responsible messengers, but often by dramatic, flamboyant, and misleading visual or verbal images that can contribute to personal and environmental disaster. We have all seen ridiculously dangerous or horribly irresponsible

outdoor activities portrayed in movies and on television, often with the smugly intoned message that "these people are professionals" and we should "not try this at home." But if the "professionals" seen by the novice on the screen are acting irresponsibly, why should he or she not aspire to do the same?

Popular magazines, even in some cases publications which are very responsible in their editorial policies, are replete with advertisements and other images which present messages, sometimes direct, often subliminal, which are jarringly at odds with the "politically and environmentally" correct safety and environmental principles which all responsible outdoor administrators and users supposedly favor. Let us cite a few examples.

A Bureau of Land Management and United State Forest Service brochure entitled "Tread Lightly! On Public And Private Land" introduces a "National Land Use Ethics Program" which offers good advice to four wheelers, snowmobilers, trail bikers, horseback riders and others. "Avoid running over young trees, shrubs, and grasses-- damaging or killing them." "Stay off soft, wet roads and trails readily torn up." "Avoid meadows, steep hillsides, stream banks and lake shores easily scarred by churning wheels." "Ford streams only at designated crossings." "Resist the urge to pioneer a new road or trail, or to cut across a switch back." "Stay out of designated Wilderness." "Thumbs down on sound! Loud noise in the back country is unacceptable." "Know you own limitations." "Carry emergency repair equipment as well as food and warm clothes." "Wear protective gear and safety clothes."[1]

Sound advice. But what do we find in the popular publications? In Backpacker a Geo Tracker pulled to the very edge of a high country lake, with the message that "Out here, all you need to do...is have fun."[2] Or perhaps you'd like to pull your Chevrolet Tahoe onto some soft ground deep in a pine forest and quote a little Thoreau: "I never found the companion that was so companionable as solitude." "Chevy Tahoe is "the one sport utility vehicle whose vast size and comfort make it perfect for self-discovery," says the ad.[3] Or how about "The Answering Machine For The Call Of The Wild." A Toyota 4Runner is "able to handle almost anything nature may throw at you."[4] Your

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[1] "Tread Lightly! On Public And Private Land: A National Land Use Ethics Program" (Undated booklet published by the United States Forest Service and the Bureau of Land Management).

[2] Backpacker, Sept. 1996, p. 51.

[3] Sports Illustrated, Oct. 28, 1996, p. 86.

[4] Ibid., p. 77.

friends at Honda tell you that "If you say it's a road, it's a road," as a Passport furiously churns up mud. However, in very small print at the bottom of the page is the admonition to "Always remember to 'Tread Lightly!'" Which message do you suppose registers with the average reader?[5] If, in fact, burying a truck in the mud is your thing, Isuzu and Honda, among others, are proudly here to help you.[6] And, by the way, how in the hell did they get that Jeep Cherokee up on top of that tall and tiny mesa top? Remember, they are professionals-- don't try this at home!

Remember that advice about dressing appropriately for comfort and safety when backpacking? Forget it. "Get Outrageous...It's Only Natural" says an advertisement for Outrageous Fruit & Grains in Backpacker. The ad features a handsome couple with full packs hiking a Capella, possibly in the Garden of Eden.[7] At the other end of the spectrum, how about a little canoe trip, ala Martha Stewart? A lucky lady from Florida "found help at her supermarket checkout counter," says an advertisement for Rodale Press. She tells us that Rodale's Prevention magazine is the key: "I believe being healthy should be a reward, not punishment. So does Prevention. They encourage fun exercise and fat-free foods. So my husband...bought me something I always wanted-- a canoe. Now we both stay fit with two paddles and a picnic basket filled with delectable food." Is this the outdoors or what? A canoe, a checkered table cloth, a bottle of sparkling water, and two people who look like they are more accustomed to the Presidential suite at the Waldorf than the business end of a paddle.[8] Are you ready for a little more adventure in a canoe? The Disney Institute shows you a group of intrepid paddlers in a swamp, with the notation that "Coming face to face with the alligator at the swamp party, Jane was reminded to make a facial appointment at the spa."[9] Ah, wilderness!

And what about those safety messages? Boreal boots boasts "No rules, no regulations, no qualifying rounds, no teams, no uniforms, no trophies, no spectators. Just you (and some boots)." We would add and "no rope" as the advertisement presents a photograph of a climber clinging to a high rock outcropping, without visible evidence of dedication to safety or prudence.[10] And an extreme skier featured in a Marmot Mountain catalog crows that "Skiing

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[5] Backpacker, September, 1996, p. 119.
[6] Backpacker, December, 1996, pp. 1-2; Backpacker, August, 1993, p., 89.
[7] Backpacker, September, 1996, p. 133.
[8] Backpacker, December, 1993, p. 26.
[9] The New Yorker, Oct. 21 & 28, 1996, p. 113.
[10] Rock & Ice, May/June, 1995, p.146.

on lifts is just training for the real thing," and describes a trip down "Alaska's Mt. XXX (name withheld to protect the foolish)."[11] Consider the fact that in 1994, rangers at Yosemite National Park performed 231 visitor rescues.[12] Averaged over one year this is more than one rescue every other day!

When you look at advertisements of this type, as well as the images presented in popular movies, television programs, videos, magazines and other sources, is it any wonder that many people, particularly novices, go to the outdoors with outlandish ideas about what they will see and do and experience? Is it any wonder that (discarding for the moment the idea of simple common sense and courtesy) many of them exhibit little concern about environmental responsibility, safety, and the rights of other people. In a sense, the job of the National Park Service and other agencies which try to teach people to act responsibly in the outdoors and in wilderness is more than simply starting from scratch. They have the extremely difficult task of trying to overcome or eradicate mountains of erroneous and irresponsible ideas which have been drummed into people's brains over the years by many messages, both open and subliminal. What are the most effective mediums for driving the right messages home? We will examine some of the more effective efforts along with possible reasons for their success.

Information and education has been a management tool utilized by park and wilderness managers for decades. During World War II, fearful that Japanese attacks on the west coast might start forest fires and depelete needed natural resources, the USDA Forest Service organized the Cooperative Forest Fire Prevention Campaign. Early campaign posters featured a wide variety of characters including Walt Disney's Bambi. However it was later decided that the Forest Service needed its own animal to represent forest fire prevention. The first poster depicted Smokey, named after the Assistant New York City Fire Chief "Smokey Joe Martin", pouring water on a campfire. Since that time the Advertising Council continued to use the Smokey campaign and in 1947 implemented the famous slogan "Remember, only YOU can prevent forest fires." A recent survey reported that ninety five percent of the public could finish the slogan when given the first few words and that ninety eight percent of the

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[11] "Marmot For Life" (Marmot Mountain Ltd. catalog, Fall, 1996), pp. 16-17.
[12] PARKNET: The National Park Service Place on the Web. World Wide Web address: http://www.nps.gov/

public could identify Smokey from a picture.[13] Few information campaigns have been so effective and as a result many managers began to look at information and education as a means of mitigating visitor related management problems.

The brochure has been called by some a panacea for all visitor related management problems. Most agencies can identify instances where brochures have been effective and also where they have not. Usually produced in response to public demand or a problem, brochures are most appropriate for tasks associated with educating the public rather than attempts to change public attitudes. Effective brochures typically utilize clear, concise messages, are of a size that is easily carried while in the park, and use graphics where appropriate. Brochures are relatively inexpensive compared with other communication media but the message can be lost if the brochure is too cluttered or if the visitor picks up too many different brochures.[14] Recently, the National Outdoor Leadership School along with the National Park Service, the USDA Forest Service, the Bureau of Land Management and the U.S. Fish and Wildlife Service cooperated to produce a new series of publications on the theme of "Leave No Trace." The general tenets of this program include: (1) Plan Ahead and Prepare, (2) Camp and Travel on Durable Surfaces, (3) Pack It In, Pack It Out, (4) Properly Dispose of What You Can't Pack Out, (5) Leave What You Find, and (6) Minimize Use and Impacts of Fire. These publications have received wide acclaim particularly because they have been adapted to provide regional and even park specific information about minimum impact practices.[15]

The value of park/area specific information should not be underestimated. For example, staff at Rocky Mountain National Park were observing numerous problems associated with cyclists traveling up Trail Ridge Road. A relatively simple brochure advised cyclists to start early to avoid traffic congestion and fumes from automobiles and to change into dry clothing prior to reaching

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[13] Fazio, James R. and Gilbert, Douglas. (1981). Public Relations and Communications for Natural Resource Managers. Dubuque, ID: Kedall/Hunt. p.104.

[14] Doucett, Joseph E. and Cole, David N. (1993). Wilderness Visitor Education: Information About Alternative Techniques. Ogden, UT: Intermountain Research Station, USDA Forest Service. p. 10.

[15] Marion, Jeffrey L. and Brame, Susan C. (1996). " Leave No Trace - Outdoor Skills and Ethics: An Educational Solution for Reducing Visitor Impacts." Park Science, 16(3), pp. 24 - 26.

timberline in order to reduce the chances of succumbing to hypothermia.[16]

Finally, it should be noted that the effectiveness of publications can be improved when combined with a personal contact. Many educational programs are facilitating this practice when designing publications. Several agencies that promote the "Tread Lightly" program for off road vehicles are publishing supplemental materials to be used in conjunction with presentations by agency personnel in general science classes in grade and middle schools as well as in hunter education courses.[17]

Exhibits and displays have been used infrequently by most agencies except for the National Park Service. As a communication medium, exhibits and displays have several advantages. Complex information can be communicated fairly easily. This would seem to be particularly advantageous for presenting detailed information about backcountry impacts and techniques for reducing the effects of backcountry recreation. If agency personnel are present, visitor questions can be answered and supplemental information in the form of brochures and maps can be distributed. Perhaps the main advantage of this medium is that information may be presented before the visitor enters the backcountry. The major disadvantage of this method is that many users do not enter visitor centers prior to their backcountry trips and as such the information presented may come too late to be of use.[18]

Communication from agency personnel has been identified as one of the most influential communication media available to resource managers. Most agency personnel and particularly those in the backcountry are perceived as highly knowledgeable and credible. Employees making visitor contacts should be trained to be friendly, knowledgeable, and sensitive to visitor needs. In addition, those involved in enforcing backcountry regulations should be low-key and avoid self-righteous attitudes. Many managers believe this to be one of the most effective techniques of dealing with visitor related problems. The major disadvantage of this form of communication is the high cost per visitor contact.[19]

Within recent years, the use of video technology has received increased attention. "Videos can be entirely produced in-house or the basic concepts

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[16] "Bicycling in Rocky Mountain National Park. (Undated brochure published by the National Park Service).

[17] USDA Forest Service (1990). Tread Lightly! Science Education Instructor's Kit and Tread Lightly! Hunter Education Instructor's Supplement.

[18] Doucette and Cole. (1993). p. 16.

[19] Ibid. p. 25.

can be developed in-house with commercial production."[20] Videos are familiar to most people and have the potential of being entertaining. Some managers believe that videos can be particularly effective in reducing problems with trail and campsite deterioration, pack stock impact, and human waste disposal. If planning to utilize videos for on-site visitor education prior to backcountry trips, consider limiting the length of the video to 5 to 10 minutes. Most visitors ready to hit the trail are reluctant to view videos that last much longer. As with many other communication media, videos may not reach most visitors and may miss target audiences, however, some agencies have experimented with providing videos to rental outlets for free distribution to consumers as a means of reaching a larger audience.

Computers have been utilized by agencies for 10 to 15 years to provide visitors with information about backcountry use. But it has only been in the last few years that the general population has turned to the computer to obtain information on a wide variety of topics on a daily basis. Who hasn't heard of the Internet yet? Most anyone who reads popular magazines, listens to the evening news, or watches sports on cable TV has been told how they can communicate via computer by typing in a cryptic message that sounds something like "www dot something or other dot com". But just what is the Internet and what are the implications for educating backcountry recreationists? The Internet is really nothing more than an enormous group of computers (3.5 million computers and 40,0000 networks at last count!) connected to one another that allows individuals to share information and to send and receive messages. One of the hottest services on the Internet in recent years is the World Wide Web or www or the web for short. The Web provides users with interactive and inter linked documents that allows users to send and receive text, images, sounds and even video. Within recent months the number of agencies and organizations providing information about outdoor activities has grown rapidly. Internet users can obtain information on almost any outdoor activity imaginable. Information about climbing, skiing, backpacking, horseback riding, fly fishing, canoeing/kayaking, almost any activity is available on the Web. Destinations and equipment topics proliferate these sites, however, a close examination has revealed an almost total omission of information related to safety and minimum impact issues. Several notable exceptions include the National Outdoor Leadership School's site (http://www.nols.edu/LNT/LNTHome) and Backpacker magazine's site (http://www.bpbasecamp.com.) for information about no trace techniques and the

[20] Ibid. p. 17.

American Alpine Club's web page (http://www.bme.jhu.edu/~peter/climbing/ANAM95/ANAM.html) for information about climbing safety. The internet has tremendous potential for educating backcountry recreationists. With many people "surfing the net" for information in lieu of other sources, it seems imperative that more information about safety and protection of the environment be made available on sites dedicated to outdoor recreation activities.

Recently, the National Park Service has proposed the development of a new computer application for park visitors. Due to shortages of personnel and overcrowded conditions, staff at Grand Canyon National Park have envisioned a "cyber ranger". Called the "Canyon Companion - Virtual Ranger" the proposal calls for the development of a small hand held, solar powered, personal, portable multimedia electronic display and communications device. This computer would be weatherproof, wireless and interactive and would provide information in the language and of the kind and depth required by each user. Such a device would help displace fixed interpretive and logistical facilities, could ask questions, register responses, provide information on destinations, offer weather forecasts, interpret features and help plan a day's activities. As the staff imagines it, the computer would be secured with a credit card procedure similar to that of a car rental. In addition, electronics would render the device useless outside of the park's boundaries and thus help deter theft.[21] While such a device might sound decades away from development, most people could not have imagined the Internet ten or fifteen years ago.

In summary, what message is in the medium? Do we too often assume that everyone is familiar with the issues surrounding outdoor recreation safety and protection of the environment? What effect is the popular media having on visitors' perceptions of what activities are appropriate in backcountry areas? Doucette and Cole suggested eight principles of effective wilderness education that might improve the situation in backcountry areas:[22]

> 1. **Educational Programs Should Be Guided by Specific Objectives.** We should focus on specific problems and target the users that are the primary cause of the problems. Of particular importance are issues related to visitor safety and protection of natural resources. Park and recreation areas can ill afford to spend precious funds

[21] National Park Service. (1995). The Sustainable Grand Canyon Workshop. Denver: NPS Denver Service Center.

[22] Doucette and Cole (1993). pp. 29-30.

on frivolous rescues necessitated by ignorant and sometimes arrogant visitors.

2. **Messages Should Be Clear, Concise and Consistent.** When more than one medium is used, it is important that the messages be consistent in order to avoid confusion.

3. **The Timing of Educational Messages Is Important.** Messages need to be sent when prospective visitors are planning their trips. Computer technology could greatly aid in this endeavor.

4. **A Combination of Techniques Is Likely To Be Most Effective.** This allows for messages to be repeated and for more visitors to be contacted.

5. **Messages Should Be Presented in a Professional Manner.** Productions do not have to be slick, but they must not look amateurish or credibility may be lost.

6. **Personnel Must Be Personable and Well Trained.** Personnel should be trained in communication skills and the techniques of low impact recreation. They should have a personal knowledge of the area and of wilderness travel.

7. **Personnel Must Be Committed.** Agency personnel must believe in the value of preserving wilderness and the importance of education.

8. **Develop Creative Ways of Educating Visitors.** Look for new techniques to reach more people and to save more money. When possible, take advantage of new media.

In addition, concerned outdoor recreationists should not hesitate to contact companies and organizations whose advertisements and communications seem to transmit messages contrary to the tenets of safety and no trace ethics.

If education about safety and no trace techniques is overlooked in the future, what are the prospects? Probably increased regulation, concentration of use to a few hardened sites, closure of sites, and the implementation of fees and charges for backcountry use just to name a few. Managers, outdoor leaders and participants all have responsibilities to educate others so that future generations may enjoy wilderness areas without the problems associated with overuse and over regulation.

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"Building a Backcountry Yurt: *Ecological Design Intelligence* Within Outdoor Programming"

by

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Abstract:

This project involved designing, building and carrying a structure called a yurt four miles into the backcountry. Sound whacky? The Utah State University Outdoor Program's yurt isn't just your average yurt. It was designed, built, and hauled in by over sixty student volunteers, "The Friends of the Yurt". It has a passive and active solar system and cost less than an average raft. Through the first winter, the yurt was used mostly for a ski hut. Current and future plans will use the yurt as a classroom to teach "relationships" to not only humans, but how plant and animals adapt to a subalpine environment.

PREFACE

Connections, some rigid like trees and soil, others loose like birds and air, built this yurt (Of course there was some creative imagination and good old hard work). Norman Goltra worked harder than a horse when asked to create something from brain dust. He knew how to swing a hammer, but when he was asked to build a community, he thought for a minute, maybe two, and said, "I'll start on it today."

INTRODUCTION

What is a yurt? A yurt complete is comprised of a circular floor, (although not always necessary, often times a yurt is placed directly on the ground), on which sits a lattice wall covered by some sort of material. Traditional yurts used in Mongolia use the hides of animals. Most modern yurts use canvas, vinyl-coated nylon, or a combination of the two.

Rafters are secured to the top of the lattice wall and slope upward to a wooden top ring, on which sits some sort of sky light. Rafters are made from dimensional lumber, tee pee poles or similar pole-sized wood. A cover material rests over the rafters, which usually slope at about thirty degrees in steepness from the top to the bottom.

TO BUILD A YURT

Why Build a Yurt? Winter offerings sponsored by the USU Outdoor Program were pretty slim, usually consisting of a winter camping trip, some slide shows and two or three yurt trips. These trips were to either the yurts in the Tetons operated by Rendezvous Ski Tours or yurts in the Logan area mountains operated by Powder Ridge Ski Touring.

There were a handful of reasons behind the need to own and operate our own yurt. First, renting yurts is too expensive for your average college student. Second, driving far distances in the winter is dangerous, and perhaps not too wise in our case, with local mountains at our doorstep. Lastly, most of the academic year it is winter in the mountains and if we wanted to get students involved in our program, it will have to have snow as a main component.

Why a Yurt? Yurts are inexpensive, usually costing much less than an average outfitted raft (if owner-built). This was very important to us, due to a small budget. Secondly, yurts are quite conducive as a teaching tool. They can be built to teach about passive solar design and sustainable living. Finally, they are functional, making moving one relatively easy. An important reason for why we chose a yurt, is that, well-designed, the beauty of being in one sends out ripples of beauty from it.

The Floor. Once we decided to build one and were granted permission from the U.S. Forest Service, the floor was the first thing to design. Being early July at this time, September (when we wanted to set it up for the returning student body), seemed as distant as Alaska. So did designing, building and hauling this collection of boards, poles, fabric, bolts, door pieces, bunk beds, etc. But the fact of the matter was, we had three months to turn an idea into a well-designed yurt and then beam it up high near a mountain pass where the closed road was about three miles away.

Norman had lots of framing and carpentry experience. You could tell. He had the floor designed on graph paper by the end of the first day. It was

complete with a materials list too. From the plan, Norm knew exactly what boards, screws and hangers we needed to purchase (after scrounging around first of course).

The floor joists started with four two by sixes of equal length, shaped like a cross, held together by hangers and plywood gussets. We worked hard and deligently, all of this floor and yurt was being constructed and assembled inside the campus fieldhouse. Users of the fieldhouse were somewhat confused by all the racket.

Twenty hours later the floor, all three hundred and fourteen square feet, as round as the full moon, was finished. It went quick, but it was big and solid, like a stage ready for some musicians. We figured it weighed over a half ton. We also were somewhat miffed at how we were going to carry it three miles and a couple thousand vertical feet.

The floor haul. News about the yurt was starting to spread and soon we recruited about twelve friends, the very first members of the "Friends of the Yurt", as they would soon be called. Our first task was to drive up a five mile four-wheel drive jeep road, load this floor in packs, on shoulders, drag, and do whatever it took to get this floor to the site. There were no big plans now, no technique or skill nor books or guides on the subject of floor-hauling.

The trail smelled like cow crap and aided by a fine powdery dust, the rank lined the inside of your nostrils. No fortune lightened anyone's load except those who had some oxygen remaining to dream and imagine why we were doing this. But some could almost picture a hut, warm, glowing, in a meadow deep and silent in snow. Some could.

It proved to be a long day. A small band of haulers took a wrong turn and ended up hiking some umpteen thousand vertical feet loaded with floor boards and a chain saw. There was some red-faced individuals who cursed at themselves quietly. Whatever the measure of a good days' work is, this collection of individuals could have re-defined it.

The yurt site. Picking the general site for the yurt was the result of spending many long days ski touring in and around this area. Some important considerations included how far and high was the site from the trailhead. If it was too close, it would be just that, too close to the road. If it was too far, it would be out of the question for hauling it in, maintaining it, and getting users in to the yurt without killing them.

Picking the specific site was determined by its orientation to the sun (for passive and active solar heating and lighting). The sun had to shine on the site for the better part of a day, even in the mid winter. There had to be a gentle north to south slope so we could have a better chance of using the snow as a wind buffer on the north side while maximizing the height off the ground on the south side to keep the passive solar windows clear of snow.

The site also was located near different slopes for skiing and snowboarding. Most importantly, the site was picked because it was the furthest place from any motorized recreation areas. We wanted to study and appreciate the winter without being distracted or disturbed by noisy snow machines and similar vehicles.

The yurt skeleton. We used about fifty yards of "Coverlite" material, a waterproof, non-breathable fabric which river bags are also made from. But it first had to be designed on paper. Materials had to be ordered and then they had to be cut and sewn together. Nan Vance walked in the Outdoor Recreation Center just at the right time. She had sewn for a backpack company and agreed to take on this project and without her, we would have been in trouble.

The wall material was designed to have over twenty-five feet of clear

vinyl windows, able to be left opened or covered and secured if needed. The wall was over sixty feet long and proved cumbersome to feed through a sewing machine (multiple times). But some long days and nights and the wall material was finished. The cover needed to be designed with windows to match the wall. The windows also had to be able to be left opened or covered and secured. This proved to be a time consuming job, as thirteen triangles with curved tops and bottoms had to be cut and sewn together, some of them with clear vinyl and covers.

The lattice wall. We used clear grained one by six poplar. Using a borrowed table saw, we ripped the large lumber into 116 pieces. All of them were drilled with holes for small bolts to create the lattice. Volunteers helped sand and varnish the individual pieces before they were fastened together.

The rafters and top ring. Rafters can be made from dimensional lumber or for a more rustic look and feel, you can use tee pee poles made from lodgepole pine. We obtained a permit from the U.S. Forest Service and spent a day driving down to the north slope of the Uinta Mountains and cutting lodgepole pines and then driving back. For the yurt we used a total of forty-four poles. First, they were stripped of bark using a draw knife. Second, they were sanded lightly and finally, they were varnished.

The top ring was made from salvaged two by sixes. We obtained these boards from a university remodeling project. The top ring is a series of small two by six pieces bolted together to form a rough circle. Using a saw, we then sawed off the edges to create a circular edge. Holes were drilled in the edge for the rafters.

The door and door frame. The door is 60" high by 51" wide. Plywood was used for the door and there is a diagonal window in door and the door is insulated with salvaged sleeping bag insulation. Door opens in to yurt. The door frame is made with tee pee poles in a tongue and groove fashion. Gussets at corners for torsional rigidity. We lock the yurt with a hasp located on the outside of the door. There is a rough gate and latch assembly for inside to secure door from inside.

Misc. There are many small items that we used to complete the yurt. The list would be too large and reading it would be pretty boring. Some of the things excluded from this paper are: the liner for the inside of the yurt, the plastic dome (skylight), the cable which rests on top of the lattice wall, the bunkbeds, woodstove, and other odds and ends. For interested persons, we will sell plans to the yurt. Please write at the address at the start of this paper.

TO SEE PICTURES OF THE YURT PLEASE VISIT OUR HOMEPAGE:
http://www.usu.edu/orc/

WHAT WE USE THE YURT FOR

"Open House" for the yurt. We didn't have any major plans for the yurt the first season. We expected it to be an "open house" for the yurt. We simply wanted people to get to know what a yurt is and what it isn't. We also wanted people to explore some of the terrain adjacent to the yurt. Most of its use came from persons who helped build and haul the yurt in. We also rented it to other students, staff and faculty at Utah State University. As you can see by the following numbers, the first year of the yurt proved to be pretty busy.

Total Number of Participants

Yurt Construction:	179/41%
Yurt Use:	259/59%
Total:	438/100%

Total Number of Participant Hours

Yurt Construction:	1480/14%
Yurt Use:	9256/86%
Total:	10,736/100%

Total Number of Participant Days

Yurt Construction:	151/28%
Yurt Use:	389/72%
Total:	540/100%

So, the average time spent by a participant involved with the yurt was: 10,736 participant hours divided by 438 participants= 25 hours per participant.

Selected quotes from the yurt journal

"Last night we saw lots of shooting stars up on the saddle...To all who helped with this yurt, I salute you." Brian Shaw

"We opened the yurt door and the warmth from within pulled us into its soothing grasp...Smiles and laughter will make it our home for the next few days..." Amanda Thimmes

"The yurt is great, perhaps I will move in and change the locks." Brenda Milligan

"Hello, I found something once lost." Aaron Atkinson

"Hey, it's not that cold. I slept in only two layers...and I didn't freeze...to death. This is the most amazing place I have ever been to! This is such a beautiful area! Thanks...for giving us this experience! Jamie McEvoy

Informal classes and theme trips at the yurt. Besides using the yurt as

a ski hut we also used the yurt for one class, ski mountaineering. Students spent the first night in the yurt and the second night was spent in snow caves high up on the divide that separates Logan Canyon and Cache Valley. The surrounding terrain around the yurt makes it perfect for teaching the basics of mountaineering. There are steep gullies for teaching ascending, descending, cramponing and crevasse rescue. The class ends by skiing down a canyon where they are picked up by an Outdoor Program employee. It is the objective of the class to introduce the basics of mountaineering so that graduates can move to other, perhaps more challenging peaks.

Additionally, the yurt was used by the Outdoor Program which sponsored an all-womens trip. The trip was full and went very smoothly. Apparently, the group talked all night long about everything.

THE NATURAL STEP

<u>The yurt as a backcountry winter classroom.</u> It was quite obvious that the Outdoor Program could build a unique education program using the yurt as a classroom. We are planning to use the yurt for six classes during the winter of 1996-97. Three of these classes will use the yurt for teaching telemark skiing and mountaineering. Three other classes will zero in on winter ecology, the special adaptations that plants and animals (and humans) make to survive the winter.

The winter ecology classes will spend two evenings in a lecture style to introduce winter ecology, and explain what will take place up at the yurt. Each class will spend a Friday through a Sunday at the yurt. During that time the students will sit and observe for two hours and write down what they observe. Additionally, students will ski along on different transects to record everything they see.

Learning about snow is also a critical element during these courses. Students will dig snow pits and record information on snow temperature, stratigraphy, hardness, density, and resistance. They will also perform various tests on the snowpack to detect weakness in the snowpack.

Along with snowpits, students will have the opportunity to build different snow shelters and sleep in them. Permanent snow caves and quinzhees will be constructed around the yurt. We wil use these structures to demonstrate the thermal properties of snow.

Our hopes are that students will start to understand relationships between our lives at the yurt and the lives of the plants and animals that use the area around the yurt.

<u>From the field to the home.</u> Filled with information about how living systems interact, we are hoping students will gain a greater appreciation of our place in these systems. From the subtle understandings of how we fit in up at the yurt site, we are hoping that we can instill this connection to a larger context. That the yurt is part of a watershed that is connected to the watershed that feeds and nourishes Cache Valley, the place where our community is located, including Utah State University.

We are offering lists of local groups who are working to protect the areas in and around Utah State University. These groups range from high school student groups to professional environmental action groups. Talking about these groups will be part of the curriculum in our classes that use the yurt. Hopefully, a "prairie fire" effect will begin to emerge and combined with other groups, a collective effort to protect our place will take hold.

SUMMARY

The yurt has offered many rewarding experiences. From the start, we have worked hard on a good design fully knowing that if we got it right, good things would ripple out from it. If we got it wrong, well, that just wasn't an option. The good things have started.

We have met many new students who are willing to sweat and toil to accomplish a worthy goal. During the first year, the area and the yurt were new and the use at the yurt felt like an "open house". With every passing moon, however, the yurt is being used more and more as a backcountry classroom to teach about winter ecology. Specifically, through knowing the principles of winter ecology, students will likely gain an increased appreciation of how living systems are connected. And how we, as humans, are connected to these same living systems.

Lastly, we will not attempt to "push" environmental action to the student. Our hopes are that a student, given primary experiences at the yurt, will understand how we fit into a living system, thus increasing ones innate connection to nature.

> *We cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well-for we will not fight to save what we do not love.*
>
> -S.J. Gould

The Effects of Family Participation in an Outdoor Adventure Program

By

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Twenty-four families participated in an intensive eight hour adventure program that included initiative games, rock climbing and white water rafting in the mountains of central Colorado. The problem of the study was to examine the effects of participation on parental perceptions of family problem solving, communication, cohesiveness, and general functioning. Sub-scales from the McMaster Family Assessment Device and the Moos Family Environment Scale were combined to form a questionnaire that was administered pre and post participation. t-tests were performed on data collected from mothers and fathers in order to measure changes in parental perceptions resulting from participation. Results indicate significant (alpha ≤ .05) positive change (p=.017) for mother's perception of family cohesiveness. No significant improvements in mother's perception were recorded for problem solving (p=.269), communication (p=.606) or general functioning (p=.130). Participating father's perceptions significantly improved for cohesion (p=.0008) and communication (p=.025). No significant improvements in father's perception were recorded for problem solving (p=.0713) or general functioning (p=.086). In order to help support statistical findings one month following participation, a purposeful sample of 11 families who had participated in the Family Adventure program were interviewed regarding their Family Adventure Program experience. Interview analysis confirmed that participating mothers, fathers and their children did in fact experience positive changes in family cohesiveness and that one month later powerful memories of the program persisted. Families also claimed to have grown closer through their experience together. Additionally interviews helped describe discrepancies found in mother/father perceptions of family functioning.

Key Words: Adventure Education, Family and Enrichment Programs

Introduction

What is the state of the American Family today and how well do these families function? Existing research and literature seems to paint two very different pictures. Some research (Wallerstein, 1979; Martin & Bumpass, 1989; Murphy, 1991; & Blankenhorn, 1995) claims that American families are weakening and nearing collapse. These researchers cite increasing divorce rates, high rates of unwed teen pregnancies, and abusive family relationships as just a few of the sources that have lead to the family's demise. Often times the research describing the breakdown of traditional "family values" is then associated with larger societal ills, such as substance abuse, increases in juvenile delinquency and gang participation, violent crimes, poverty and homelessness (Blankenhorn, 1995). Indeed during the recent 1994 US Senate and House elections political hopefuls rallied around a return to traditional

"family values" in order to help solve the many social problems facing America today.

Many parents are seeking additional opportunity to enrich the lives of their children. For example, parents with the financial means spend billions of dollars each year on providing such things as toys that promote learning, piano lessons, dance classes, and private education, all with the hope of enriching their children's lives and providing future opportunity and advantage. And yet, despite our attention to individual enrichment, how much time and energy is spent upon the maintenance and collective enrichment of the family unit? Are family relations neglected or even overlooked? A startling statistic (ISR, 1985/86) purports than the average American father spends eight minutes each week engaging each of his children in purposeful conversation and quality activities. Mothers didn't do much better as they averaged just 11 minutes (mothers employed outside the home) and 13 minutes (mothers described as homemakers) a week. What are the effects of this seemingly insignificant time allotted for needed family communication and interaction? Might families be better able to adapt to new circumstances and to change, or even become more resilient to breakdown, if their ability to effectively communicate, solve problems and cohesiveness was enhanced?

Currently there is a movement in American society that is actively promoting increased family activity, the use of effective communication and problem solving skills, and greater family cohesion and adaptability; this movement is known as family enrichment. Proponents of the family enrichment movement assert that most families have inherent strengths and abilities that can potentially protect them from dysfunction and breakdown (Otto, 1976; Bowman, 1976; & Mace & Mace, 1986). Family enrichment supporters believe that much like an automobile, family systems need occasional tune-ups to insure smooth and efficient performance. Unfortunately many American families don't take the time to perform tune ups on their own for various reasons or feel intimidated by participation in existing enrichment programs (Bowman & Kiernan, 1985). Participation in enrichment programs to many families indicates the existence of undesired weaknesses or problems; which many families would rather go on believing do not exist rather than to address them (Gillis & Bonney, 1986; Gillis & Gass, 1993; & Burg, 1994).

Adventure/Challenge Education programs provide opportunities for both individual and collective enrichment in settings that may be less intimidating than a family counselors office or church enrichment program. These programs typically utilize an outdoor setting where initiative games and other outdoor activities that encourage development of trust, cooperation, problem solving skills, and effective communication are practiced.

When properly facilitated Adventure Challenge Education activities have yielded results suggesting change and growth among a diversity of participants (Ewert, 1988), (Borstleman, 1970), (Kelly & Baer, 1971), (Gaston, Plouffe, & Chinsky, 1978), (Pfirman, 1988), (Stich, 1983) and (Marsh, Richards, and

Barnes, 1986). Adventure/Challenge Education programs have been implemented for use by such groups as corporate business personnel, youth summer camp participants, college students, church groups, persons with disabilities, adjudicated youth and mental health patients. However, to date little research exists documenting the effects of family participation in Adventure/Challenge Education activities.

The desired outcome of these programs ranges from pure recreation to primary therapy. Each program shares several things in common; the activities are inherently challenging and growth promoting but, fun and exciting for participants as well (Gillis & Gerstein, 1992). Given that these programs offer participant groups potential opportunity for individual and collective growth, in a setting that may be more comfortable and less intimidating than traditional enrichment programs, it is surprising that so few programs have been implemented to cater to the needs of our most basic group, the human family.

Methods

The problem of this research study was to examine the effects of family participation in an eight hour Family Adventure Program. The Family Adventure Program consisted of various initiatve activities, rock climbing and white water rafting. This study investigated the parental perceptions of 24 mothers and 24 fathers of their family's communication, problem solving skills, cohesion and general functioning pre and post participation. Additionally, observations were collected through out the four week program and interviews were conducted with 11 families one month following their participation in order to confirm statistical findings and to further describe participants experience.

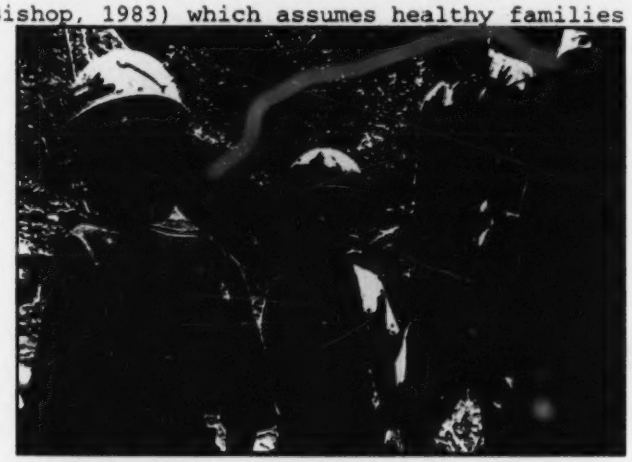
The conduct of the study involved the following organizational steps: (a) selection of the instrument, (b) development of the family adventure program, (c) pilot study of the program and test instruments, (d) arrangements for conducting the 1996 Gunnison family adventure program, (e) selection of family adventure program facilitators, (f) selection of participants, (g) description of the participants, (h) administration of the instrument, (i) description of the treatment, (j) follow-up interview procedure, (k) analysis of the data and, (l) summary.

Selection of the Instrument

It was decided to utilize several methods of data collection from participants in the Family Adventure Program. The first instrument was a family functioning assessment combining sub-scales from the McMaster's Family Assessment Device (FAD) and Moos' Family Environment Scale (FES). The FAD is a 60 item questionnaire, with seven sub-scales, developed by McMaster in which family members respond with perceptions of their family as a whole. The assessment utilizes a 4-point likert scale ranging from strongly agree to strongly disagree (Epstein, Baldwin and Bishop, 1983). For the purpose of this program three scales from the FAD were utilized; problem solving, communication and general functioning. Moos' FES is a 90 item true/false questionnaire, with ten sub-scales, developed by Moos in which family members

respond with perceptions of their family as a whole. (Moos and Moos, 1981). One sub- scale from the FES, cohesion, was used.

Grotevant and Carlson (1989) report that the FAD was designed for use by clinicians and researchers to assess family functioning for a variety of dimensions. The FAD is theoretically based on the McMaster Model of Family Functioning (Epstein, Baldwin and Bishop, 1983) which assumes healthy families accomplish certain essential functions and tasks. The assessment is clearly written and has directions that are easily understood. Grotevant and Carlson also report that the instrument is easy to administer, complete and score which were important considerations for the Family Adventure Program. Miller, Epstein, Bishop and Keitner (1985) report that the FAD sub-scales have an internal consistency that ranges from .72 to .92. Test-retest reliabilities are .66 for problem solving, .72 for communication, and .71 for general functioning.



Moos' FES was also selected for it's ease of administration and completion. Grotevant and Carlson (1989) report additional strengths include the assessment's theoretical base and that it has been standardized and normed on a sample of 1,125 normal and 500 distressed families. Moos and Moos (1981) report that the 10 FES sub-scales have an internal consistency ranging from .61 to .78. Test-retest reliabilities range from .68 to .86.

The FAD/FES assessment was filled out twice by Family Adventure Program participants; once just prior to participation and then immediately following the conclusion of the last activity.

The investigator also sought to collect qualitative data to help confirm statistical findings and to further explain the participating families experience. Through out each program a reflexive journal was kept detailing various family experiences and verbal transactions. Also at the completion of each program assistant facilitators were asked to recall their experiences of working with the day's families.

Lastly, a purposeful sample of family participants exhibiting various responses to the Program were identified and interviewed approximately one month following their experience. During these interviews family members were given the opportunity to reflect back upon their experience.

Development of the Family Adventure Program

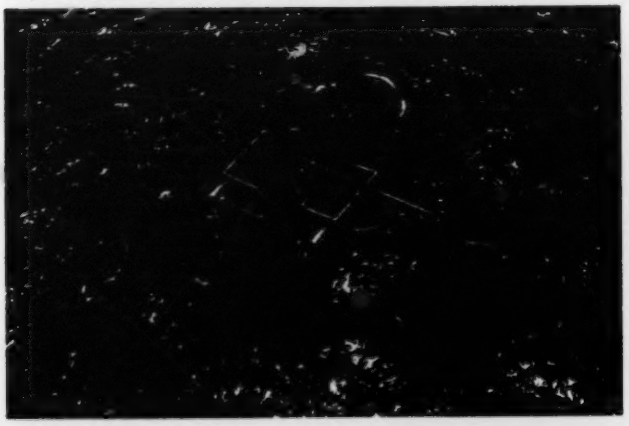
Prior to implementation of the Family Adventure Program a careful review of literature and discussion with several professional family and group facilitators provided key considerations. For example, it was determined that with younger participants it would be necessary to consider the flow of

activities and to not allow for excessive time to be spent on the debriefing of activities. Several activities frequently utilized with older groups were precluded to insure that children of all ages would be able to participate fully along with other family members. Expert panelists also recommended various initiatives for program inclusion. Lastly, the program carefully subscribed to traditional Challenge Education sequencing in order to gradually intensify perceived risk and problem solving difficulty (McGowan, 1989). Following collection of information and collaboration with the panel of experts a family program was designed and a pilot study was performed in order to assess the program and test instrument.

Pilot Study of the Program and Test Instrument

During the summer of 1995 the Family Adventure Program was conducted at the Indiana University Shawnee Bluffs Alumni Family Camp in southern Indiana. For several weeks 3-4 families participated in a 4 hour program that included various games and initiative activities as part of the program. Family members age 10 and older filled out the pre and post participation questionnaires. Two days following their experience parents were interviewed concerning the program and asked for their feedback.

Feedback was generally positive and parents made helpful suggestions and comments that were later implemented as part of the 1996 Gunnison Family Adventure Program. For example, parents felt that some of the questions on the assessment devices were too difficult for their children to comprehend and accurately answer. It was later discovered when the assessments were scored that the children typically didn't answer all the questions anyways despite the encouragement of the facilitator. With this input it was decided not to collect data from children participants, but to focus solely on the perceptions of their parents.



Valuable feedback was also given in regards to the various activities that made up the program. From this information most of the activities were validated in their effectiveness for use with families while one activity was decidedly too difficult for family participants and required a disproportionate amount of the program time to carry out. This activity was later dropped from the list of initiative games that were a part of the 1996 Gunnison Family Adventure Program.

Lastly, the Shawnee Bluffs Family Adventure Program facilitators found it difficult to fully accomplish the objectives of the program in four hours. Families also reported that at times they wished they could have had more time to do additional activities and to reflect upon their experience. However, scheduling more than a four block was impossible at Shawnee Bluffs because other camp programs conflicted. Therefore, it was decided to operate the

Family Adventure Program independently of a camp allowing for greater control of the program and to increase program length from four to eight hours.

Arrangements for Conducting the 1996 Gunnison Family Adventure Program

In November of 1995 the Gunnison Parks and Recreation Department was contacted and asked if they would be interested in sponsoring a one day Family Adventure Program that included initiative games, rock climbing and river rafting. Upon receiving additional information regarding the program, Dan Ampietro the Gunnison Parks and Recreation Director, agreed to act as sponsor. Sponsorship of the program by Gunnison Parks and Recreation was crucial as the initiative games and rock climbing were covered under their insurance policy.

A rafting outfitter was also contacted and subsequently offered the use of two 10 person rafts for each day of the program and the shuttling of boats and participants to the put in. Other program sponsors included Subway Sandwiches who provided discounted subs and Western State College who donated use of climbing harnesses and helmets. With the help of sponsors costs were minimized and to encourage participants from all socio-economic levels no fee was charged.

A site was selected for the program in an area known as Taylor Canyon just 20 minutes northeast of Gunnison. The site selected was a 60 acre park bordering the Taylor River and surrounded by US Forest Service land. This location offered easy access for participants, restrooms and picnic benches, 25-30 foot crags for climbing, and a three minute drive upstream to the rafting put in.

Selection of Family Adventure Program Facilitators

The investigator served as the head facilitator and four Western State College (WSC) students served as assistant facilitators. Additionally 2-3 student volunteers from a WSC recreation leadership course assisted during the rock climbing phase of each program.

The investigator's adventure program facilitation experience included; background in working with married couples and families, youth groups, college students, psychiatric hospital patients, and corporate business personnel. The investigator had extensive experience in facilitating the above groups in various adventure settings including high and low ropes course elements, rock climbing and river rafting. The investigator also maintained a current CPR and First Responder certification.

Assistant facilitators were selected based upon adventure activity experience though no assistant had previous experience facilitating an adventure education program. Prior to the program as part of a for credit field experience assistants received extensive field and classroom training.

Other program volunteers which assisted during the rock climbing phase were selected based upon their rock climbing expertise. These volunteers made it possible to set up four separate climbs and insured a ratio of 2 staff: 1 family.

Typically, the program involved 3-4 families for a total of 15-18 participants. Because of the nature of the program activities and varying participant ages, (2-64 years old), assistants played a critical role in insuring safety and providing the investigator opportunity to interact with each family and to record field notes.

Selection of Participants

In April of 1996, one month prior to the first scheduled program, the Family Adventure Program was heavily advertised. The program was advertised in a local newspaper, 40 flyers posted around the city of Gunnison, through a parks and recreation brochure, on a newsletter distributed to elementary school parents and as an announcement and subsequent interview through a local talk radio station. All 32 family participant slots were filled within two weeks of the initial announcement of the program. To sign up for the program families went to the Gunnison Parks and Recreation office where they selected a participation date. After signing up they were given parks and recreation waiver forms for each member of their family and a Family Adventure Program packet.

The Family Adventure Program packetcontained general information, an equipment list, program outline, map to the program and informed consent forms. The forms contained information regarding the nature of the study and individual involvement. The consent form also contained information outlining the subject's right to withdrawal at any time and that all information collected during the study would remain strictly confidential. These forms were to be filled out and submitted prior to participation in the program.

The night prior to each scheduled program date participating families were contacted and asked if they had any questions regarding their participation in the program. Families were reminded about program starting time, various clothing and equipment recommendations and advised that they would be contacted by 8:00 AM should the weather appear questionable.

Description of the Participants

Thirty two families signed up to participate in the Family Adventure Program. After several program cancellations and incomplete assessments were dropped a total of 24 usable mother/father assessments were obtained. Participants ranged in age from three to sixty-four. These families were all residents of Gunnison County Colorado. Gunnison Colorado is centrally located in the state of Colorado two hundred miles south west of Denver. In 1993, the recorded population of the City of Gunnison was 4,943. In the same year the County of Gunnison was home to 11,224. Located at 7,703 feet the city of Gunnison is surrounded by USFS, BLM and NPS owned lands which make up 85% of the county. The top three sources of revenue for the Gunnison area are; tourism ($35 Million), education ($26 Million), and ranching ($8 Million). (Gunnison Chamber of Commerce, 1995).

Interested families signed up to participate during one of eight sessions offered during the months of May and June 1996. Due to weather problems (lightning and high winds) one session was canceled midway through the program. A second session was canceled completely due to rain and snow. Several single parent families participated in the program. Since it was necessary to have scores for both mother and father these scores were later dropped.

Administration of the Instrument

The data were collected during the months of May and June 1996. Following a briefing of the purpose of the study and collection of consent forms participants were reminded of the importance of the research as suggested by Miller (1986) and the need for them to truthfully answer each question of the assessment in order to obtain valid results. Once again confidentiality was assured and participants were reminded to leave no blank answers. Next copies of the combined FAD/FES were passed out along with pencils to the parents. Assessments were then collected and filed into a folder. Immediately following the last activity in the Family Adventure Program copies of the combined FAD/FES were passed out again to the parents.

Description of the Treatment

Six initiative activities were combined with rock climbing and white water rafting. These initiatives and activities were selected for their potential to aid participants in discovering and developing better family communication, problem solving, cohesion, teamwork and cooperation. The Family Adventure Program was conducted as follows:

9:00 to 9:30 - Arrive at Mt. Park, organize equipment and shuttle vehicles to rafting take out (Gunnison Mt. Park)
9:30 to 10:00 - Introduction to the program and fill out pre-participation questionnaires (Gunnison Mt. Park)
10:00 to 12:00 - Initiative activities: Group Juggle, Porcupine Progression, Trust lean, trust fall, and TP Shuffle. (Gunnison Mt. Park)
12:00 to 1:00 - Lunch and climbing preparation (Gunnison Mt. Park)
1:00 to 2:30 - Rock Climbing and Rappelling (Gunnison Mt. Park)
2:30 to 4:00 - Rafting from 5 mile bridge to Almont takeout (Lower Taylor River)
4:00 to 5:00 - Change into dry clothes, initiative activity: A pat on the back, and final debriefing (Almont takeout)
5:00 to 5:15 - Fill out post-participation questionnaires (Almont takeout)

Follow-Up Interview Procedure

Interviews were conducted with 11 of the 24 participating families approximately one month following participation in the Family Adventure Program. The purpose of the interviews was to collect information regarding family member's experience and to ask follow up questions on the pre and post data which had been collected at the time of participation. A purposive sample of families were selected to be interviewed. The investigator selected families that represented various age categories. For example, young families where parents were in their early thirties and the children were also young (3-7). After selecting families representing various life stages the investigator sought to select families who based on observation had differing program experiences. Families who were talkative and enthusiastic during the

program were selected for interviewing as were families that seemed more quiet and contemplative. The main goal of the selection process was to insure that a variety of backgrounds and perspectives were represented.

Analysis of the Data

There were three sources of data in this study including the combined FAD/FES assessment, facilitator observations collected during the program and data collected from interviews one month following participation. These three sources attempted to determine changes in parental perception of family communication, problem solving, cohesion and general functioning resulting from participation.

Quantitative data collected from the completed FAD/FES assessments were scored according to instructions found in their accompanying manuals. For both the FAD and FES assessment lower scores signified higher perceived functioning while higher scores indicated lower perceived functioning.

Raw data from the scored FAD/FES assessments were then analyzed utilizing the SAS statistical package (SAS Institute, 1990). The data were analyzed using a t-test of the difference of pre and post test means to test for significant differences for the following hypotheses:

1. Parental perception (mother and father's) of their family's communication will not significantly improve as the result of participating in the Family Adventure Program.
2. Parental perception (mother and father's) of their family's problem solving will not significantly improve as the result of participating in the Family Adventure Program.
3. Parental perception (mother and father's) of their family's cohesion will not significantly improve as the result of participating in the Family Adventure Program.
4. Parental perception (mother and father's) of their family's general functioning will not significantly improve as the result of participating in the Family Adventure Program.

Results

Statistical findings are organized and summarized by hypothesis.

Hypothesis 1

Hypothesis 1 stated: Parental perception (mother and father's) of their family's communication will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Communication Pre and Post Participation (n=24)

Group	Pre-Test Mean	Pre-Test sd	Post-Test Mean	Post-Test sd	p	df
Mothers	19.041	2.7	18.791	3.2	0.606	23
Fathers	21.333	2.9	20.291	2.7	0.025*	23

*alpha $\leq$ .05

Hypothesis 2

Hypothesis 2 stated: Parental perception (mother and father's) of their family's problem solving will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Problem Solving Pre and Post Participation (n=24)

Group	Pre-Test Mean	Pre-Test sd	Post-Test Mean	Post-Test sd	p	df
Mothers	12.916	3.1	12.416	2.6	0.269	23
Fathers	13.250	2.5	12.625	2.1	0.142	23

*alpha ≤ .05

Hypothesis 3

Hypothesis 3 stated: Parental perception (mother and father's) of their family's cohesion will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family Cohesion Pre and Post Participation (n=24)

Group	Pre-Test Mean	Pre-Test sd	Post-Test Mean	Post-Test sd	p	df
Mothers	10.666	1.5	10.000	1.0	0.017	23
Fathers	11.916	2.0	10.875	1.7	0.000*	23

*alpha ≤ .05

Hypothesis 4

Hypothesis 4 stated: Parental perception (mother and father's) of their family's general functioning will not significantly improve as the result of participating in the Family Adventure Program.

Parents Perceptions of Family General Functioning Pre and Post Participation (n=24)

Group	Pre-Test Mean	Pre-Test sd	Post-Test Mean	Post-Test sd	p	df
Mothers	24.041	3.8	23.291	3.1	0.130	23
Fathers	25.000	3.0	24.208	2.6	0.086	23

*alpha ≤ .05

Qualitative Support

Family interviews supported the statistical conclusion that participation in the Family Adventure Program was significantly associated with Family cohesion. Other dimensions tested, problem solving, communication and general functioning, were often brought up and discussed. However, these dimensions never became the focus of interviews like cohesion. The word cohesion was rarely used. Rather words like closeness, bonding, coming together, and support were used by families in describing how the program

influenced them. Sixteen year old Lynn Kimball (names cited are fictitious) describes her experience this way; "The challenging part of the climbing made us want to encourage one another because it was so difficult...I felt closer to my family because I could understand some of the things they were going through. After I had climbed and my brother was climbing I wanted to encourage him because I knew how hard it was." Lynn's mother Jan added "The activities brought our family together. We now have a great memory. In the future we'll say something like remember the time...."

The Talmage family saw the program as a means of strengthening their family. Susan Talmage related "We have a step family. A "yours, mine and ours" that we are trying to bring together. So we saw this program as an opportunity to do that...I think the experience was fun and really helped us as a family to accomplish some of the things we set out to do." Jessica Talmage adds "It was a good chance for us to have to get together."

Linda and Dan Payne are separated. Despite the separation Linda recognized the fact that she could always depend on Dan to be there for her or their son Kurt. Linda shared "I think I noticed that I can count on Dan. There are times I think when our understanding of a situation might be different. But, I know that when I really am in a crisis situation he'll be there."

Other family members recounted specific activities and how important support and pulling together through out the activity was critical. Dave Bender said "The climbing was challenging. Having family there to support me and encourage me was important." Dave later shared "We had been arguing on the way up. We were literally at each other's throats. That all went away quickly when we started doing the activities. It just doesn't last long when you're in a beautiful place doing these kind of activities." For Dave and Leslie discussing and talking about the activities was key in drawing closer as a family. Dave said "You can go through months without any experiences to really talk about. A family activity like this though provides us a whole lot to talk about. Not just the activity, but our feelings about the activity, and how they relate to us as a family. These type of experiences I think are what draws families closer together."

Conclusions

The main goals of the Family Adventure Program was to encourage the discovery and development of skills including problem solving ability, communication, cohesion and general functioning. These goals are consistent with the goals of similar marriage and family enrichment programs as described by Otto (1977), Mace and Mace (1986), Sawin (1986) and Diskin (1986). The program, modeled after various outdoor adventure programs described by Marsh, Richards, and Barnes (1987), Ewert (1988), Borstleman (1970), Bertolami (1981), Mason (1981), Gillis & Gass (1993) and Clapp and Rudolph (1993) sought to accomplish

these goals through a series of experiential family activities including initiative games, rock climbing and rafting. These experiential activities encouraged the discovery and development of family relationship skills through thoughtful reflection and transfer.

Results indicate significant (alpha ≤ .05) positive change (p=.017) for mother's perception of family cohesiveness. No significant improvements in mother's perception were recorded for problem solving (p=.269), communication (p=.606) or general functioning (p=.130). Participating father's perceptions significantly improved for cohesion (p=.0008) and communication (p=.025). No significant improvements in father's perception were recorded for problem solving (p=.0713) or general functioning (p=.086). Interview analysis confirmed that participating mothers, fathers and their children did in fact experience positive changes in family cohesiveness and that one month later powerful memories of the program persisted. Families also claimed to have grown closer through their experience together.

Contributions of the Study

The findings from this study contributed to our understanding of family enrichment and adventure/challenge programs in the following ways:

1. The research findings add to that body of literature which suggest adventure/challenge programs effectively promote positive growth and change. Currently, little research has been documented that reports specifically the effects of family participation in an adventure/challenge program. The investigator hopes that this research will encourage future documentation of family programs and their ability/ inability to enrich family life.

2. The research has utilized various data collection and analysis techniques, both quantitative and qualitative, in order to paint a more accurate picture of Family Adventure Program participant's experience. Qualitative methods successfully confirmed various quantitative findings and explained the potential neutralizing of results due to some families increased awareness of family functioning and need for change.

3. Adventure/challenge programs may provide viable additions or alternatives to traditional enrichment programs especially for fathers who seem more susceptible to changes in perceptions due to participation.

4. Families that were interviewed indicated that there is a need for additional family programming that utilize outdoor adventure pursuits. Family programmers should carefully consider barriers identified by families in the study, such as money, time and preparation energy, when developing family program formats.

Recommendations for Further Study

Based on the results and conclusions of this study the following recommendations are suggested for further research into family adventure programming:

1. The Family Adventure Program should be replicated utilizing families from other parts of the US and a control group should be established to allow for experimental/control group comparisons and a host of additional statistical methods to further validate program efficacy.

2. Length of family programs need to be further examined in order to find an optimal time period required for change. Questions like "Is an eight hour program sufficient to promote effective long term family improvements?" need to be more fully examined. Future pilot programs should consider lengthier periods of time to provide participants ample opportunity for further reflection and practice of newly discovered/learned skills.

3. Future research should seek ways of further engaging younger children in debriefing sessions in order to help deepen their participation and increase their learning.

4. Much of the literature reviewed utilized traditional quantitative methodology. In this research the author attempted to use qualitative methods in order to more fully describe the experience of participating families. In the future, subjective experiences of participants in adventure challenge programs, needs to be further explored and documented.

5. Families that were interviewed described a variety of benefits that could be studied in future adventure family programming. For example, improvements in participant self-esteem, family trust, adaptability, and love were each mentioned. Future research should further seek to describe improvements for these dimensions as well.

6. Research focusing on leadership of family programs should be further studied in order to develop training programs and manuals for potential family adventure/enrichment program leaders.

7. Future programs should further emphasize the need for transferring learning to the home. Most families struggled with what to do next as a family to continue growth upon completion of the program. Perhaps concrete "homework" assignments that provide the family additional feedback could be utilized to further aid in the transference process and insure positive long term effects.

8. Future programs should consider providing adventure enrichment programs designed for special populations such as single parents.

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OUTDOOR ADVENTURE PROGRAMS
FULFILLING HEROIC ARCHETYPAL PATTERNS

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ABSTRACT: Experiences found in adventure programs and expeditions often emulate the archetypes depicted in myths and stories from around the world. As noted by literary and psychological researchers such as Joseph Campbell, participants go through stages and trials similar to the heroes and heroines of old. An understanding of this pattern and using certain methods such as ritual and story-telling give adventure experiences a deeper, more profound relevance to participants.

He was cut off from his family and all that he knew. With strange companions, he was led by a mysterious figure who was taking them into unknown areas of unsurmountable perils. The guide had given them gentle encouragement, a few interesting tools and an uncertain goal. They fought with each other occasionally but pulled together when the going got tough and achieved their goal. Afterwards, he was not the same person. The trials he faced and the revelations that he experienced brought him closer to his own true identity. Does this sound like a student's or perhaps even your own experience on a wilderness expedition? Well, it is also the basic plot line of Luke Skywalker's adventure in *Star Wars*. In fact, it is the basic pattern of all epic adventures that date back to prehistoric times. Joseph Campbell's renown work on archetypal figures and adventures, especially in his *The Hero with a Thousand Faces*, details a pattern in the mythical tales of heroes' and heroines' cyclical journey through dangers and challenge to achieve rewards and personal growth (Campbell, 1968). This same pattern is the basic format of 'rites of passage' rituals which are universally followed around the world and through history. To quote:

"The so called rites of passage. . . , are distinguished by

formal and often severe, exercises of severance, where by the mind is radically cut away form the attitudes , attachments and life patterns of the stage left behind. Then follows an interval of more or less retirement, during which enacted rituals designed to introduce the life adventurer to the forms and proper feelings of his new estate, so that when, at last, the time is ripened for the return to the normal world , the initiate will be as good as reborn"(Campbell, 1968).

So what? How does this relate to outdoor-adventure recreational and educational programs? First, let us look at the current rites of passage that are offered to most of our youth today. Perhaps the most anticipated but least value forming is achieved just by reaching 16 years and taking a simple driving test(Finn, 1993). A more entertaining ceremony is enacted at the end of public education with a celebratory prom (Hernandez, 1993). But are these transitions points that prepare a person for the responsibilities of an adult? Even unformalized initiations into the world of drinking and drugs or the onset of sexual relations are often recognized as rites of passage. Granted, there are contemporary societies and cultures that consciously enact and perform ceremonial and intense rites of passages for thousands of youth every year but what are the values and the self concept created by initiation into most gangs or collegiate GREEK clubs(Williams,1992)?

In the outdoor adventure profession, we have the opportunity to provide an experience that can be retold very much like the figures found in Greek or Native American mythology. This is not so much a manual explaining how to create a rite of passage but more of a comparative study which can provide a backdrop for outdoor leaders to consider the roles of guide and students and the archetypal pattern of the experience. With this approach in mind, certain practices and models can be used (or even realized that they are being used) to make a more a participant's experience more meaningful and impactful.

The outline of a hero's quest found in *The Hero with a Thousand Faces* can be laid over the common experience of adventure programs, especially expeditions. At it's simplest level, there is separation, a time of trials and finally the return but now as a hero or heroine. Joseph Campbell gives a more detailed account, first describing the "call to adventure" in which the central figure is summoned or compelled from his or her homeland to go into

the unknown. All that is familiar to them and even their very identity is lost. On a grand scale, this is the Buddha leaving his palace behind and forsaking his princly title. But it is no errant wandering or tourist trip; there is a goal in mind, a vision to enact, a Golden Fleece to obtain. Essentially, people on the onset of an expedition experience the same separation. Behavior and skills previously used to get through the day are useless and new ones must be acquired. This is the point where a herald or guide comes into the picture. Sometimes they may first appear to be the antagonist, placing the unwilling character on the journey and sometimes they are a friend who provides special gifts to aid the adventurer but more often, they are mix of both. This is where the role of the outdoor leader is characterized. They are 'from' the environment where the adventure takes place, having the knowledge, familiarity and tools needed to survive. Just as Perseus was given a mirrored shield to save him from the dreaded glare of the Medusa, guides give protective clothing, gear and teach the skills necessary to survive in the wilderness. Another a Greek hero, Theseus was given string by Adriane to help him find his way out of the Labyrinth, just as instructors give a map and compass to the group and show them how to use it.

Now the initiate is ready to enter the "zone of magnified power". Here, the world is entirely strange and reputed to be dangerous. This is the stage where the hero must strive to achieve victory, against challenge and with himself. In Norse myth, Thor and Loki enter the hostile and terrible Jotuenhiem, land of Giants; for outdoor programs, it is the trail head or even the ropes course grounds. Especially for populations that have never associated with the wilderness environment before, this is a true threshold into a world of exaggerated dangers (rabid Grizzlies and *Deliverance* bogeymen) and more real, unknown problems (group struggles and confrontation with own deficiencies). This is the most exciting part of mythological tales: the tests of Hercules, the monsters encountered by Jason and Odysseus, and the trials faced by the Sumerian goddess, Inanna as she entered the underworld. While the challenges faced by the members of an expedition are not as fantastic, they can be just as difficult. For the outdoor adventurer, weather, getting lost, group conflicts and anaphalaxic shock are the modern day monsters that must be overcome to finish the trip or even to just survive. Two types of trials in particular, the grand challenge and the suspended period are central experiences and will be discussed later.

Finally, there is the return home which few outdoor leaders ever get to witness. Now, the wanderer comes back as a hero or heroine with the treasures to benefit his community. Theseus returns to Thebes to be king and a girl comes home from a semester course, a woman. A key element in this return is that the personal growth of the prodigal son or daughter now serves their community. The maturity and confidence obtained on the journey improves the relationships with their friends and family.

Understanding this pattern and the relationship of modern adventure expeditions to the mythical heroic journeys of old gives a deeper and more dramatic impact to the processing and appreciation of such programs. As a member of an expedition, the hardships faced are reduced by viewing one's role in terms of a larger picture, the continuation of an adventurer's quest for honor and reward. As a guide, it gives a different view for what is happening to the students and another means of framing activities. However, there are specific methods that compliment this approach. Mainly, the conscious use of ritual, the sharing of stories and understanding the archetypal role of the guide are focus points that instructors can develop to enhance the student's experience. Playing with them and finding what is comfortable and effective for each leader is an on going process that develops over time and must be adapted for each program population and goal.

To fully appreciate what the use of ritual means, we must broaden it's references. It could be the dramatic use of ceremony as found in Catholic Mass or the Native American's pipe smoking ritual but it can also stand for the habits and behaviors of the group that become the norm. This refers to the way we wake up, serve food, and say good night. Often on long expeditions there is a particular pattern followed that may never have been expressly stated such as cooks always being last to be served. Other rituals have a ceremonial aspect and intend to be poignant; such as the end of a program when it is time to part. Rituals are effective at transitions and at other key points in a trip or program, allowing people to recognize the importance of the occasion. At the beginning of the trip, taking time to say goodbye to their previous 'life' prepares participants for their experience. This can be writing a letter home or giving a gift or token to those left behind or by even literally saying goodbye to their things. During the trip, ceremonies help participants realize and reflect on key parts of the expedition, cementing their impressions of it. When passing a landmark or entering a new

experience.

Two rituals in particular, familiar to most programs, are often the most poignant and memorable. One is a final, climatic achievement of an expedition such as reaching the mountain peak. The other is quieter, less physical but just as impactful emotionally, mentally and spiritually: the solo period. Relating the former ritual to myth, the physical challenge of the ascent and the potential danger of rock slides and exposure reflects the challenge of a knight slaying a dragon. Even though it is the muscle and nerves that accomplish the goal, the body needs the will power and conviction to reach the top. Indeed, it is not so much the altitude and fatigue that must be overcome but it is the fear and self-doubt that is faced head on. In reaching your personal limits, a great sense of power and enhancement is felt by reaching untapped inner-strength resources. The stress and hardships faced give the validity to the experience as a transformation point in a person's life. Just as impactful is the reflective, time-out period known as solo. Many comparisons have been made to Native vision quests but perhaps this ritual can be recognized in every religion. Jesus was in the desert for forty days, the Buddha sat under the Bo tree and the Norse God Odin hung on the cross. The pattern is the same: there is a rejection of sensory input, even of basic bodily needs such as sleep and food. The participant is faced with their own situations, values, goals and desires, in essence, themselves. The result sometimes is a transformation, a wider, more universal, altruistic perspective. "Ego is not annihilated in them; rather, it is enlarged; instead of thinking only of himself, the individual is dedicated to the whole of his society" (Campbell, 1968). This is the basic service ethic found in Outward Bound programs. Indeed, it was one of Kurt Hahn's primary goals to instill a sense of compassion in his graduates. Not that Outward Bound students become world saviors but that the focus of the expedition is not reaching the end but creating a cohesive, effective team (HIOBS, 1992). Perhaps through the shared hardships of miles, cold and hunger, people gain a sense of empathy that is truly sincere in the wilderness.

Finally, the end of the expedition is perhaps the most appropriate and has the greatest need for ritual. Time is taken to recognize their accomplishment and to mention honors. Drastically important, saying farewell to people with whom deep bonds were formed eases the bereavement of the separation. Thirdly, recognizing the transition prepares them for their

terrain, a ritual can have a memorable effect. Carrying a rock up a mountain to add it to the cairn along the ridge or singing a certain song at trying points on the trail are just two examples. The population of the students and the sincerity of the instructors determine how 'corny' a ceremony may feel. Basically, the first few rituals may not be taken as seriously by some students but repetition has the effect of ingraining it into their habits. It is the strength of the community, whether that be the whole program (department, school, company) and it's traditions or just the nucleus of the expedition members themselves that creates the culture which gives birth and structure to rituals. There are several rituals used on expeditions that are familiar to most programs. One is the chow circle; before eating, members hold hands, communicate any information or feelings, and have a moment of silence while a 'pulse' is passed around by squeezing hands. All tasks and problems are put on hold and a deep sense of community is engendered. Indeed, a sense of fellowship is a primary root in performance of rituals. Another ritual is the use of the talking stick.(Adams, 1987) It may be just a stick but it has the wonderful power of stopping interruptions and to help focus on listening. Often, whatever stick nearby can work but when students take the time to decorate the stick (with whatever natural resources they find) and bother to carry it with them from campsite to campsite, it gains added significance. Again, it is the time taken, the resources used, and attitude that give any ritual it's power.

As a final example, rituals can sometimes be spontaneous and unstructured. There is an account from one Outward Bound instructor that occurred late into his expedition. One night, around the campfire, the students (and instructors) became rather rambunctious; they tied feathers in their hair, smeared ash and mud on their bodies and faces and began to dance around, howling at the night sky. This was by no means a planned activity but rather a sudden outburst of just cutting loose and having fun. Joseph Campbell may relate the Greek God Pan's effect on shepherds and maidens to the subliminal need for the unconscious to get in touch with it's wild side but however that may be, the night had a deep impact on their experience and became a turning point in the group's cohesion. There are dozens of activities, ranging from reading quotes to telling riddles that ritualize experience. These smaller rituals have a strong impact on the continuity and structure of a course but there are certain ones that stand out as key points in the student's

future challenges. Often a token is given, either a diploma, pin or other such item. In some cultures, a permanent mark such as a tattoo or piercing is made symbolizing the transition. Whatever it may be, a physical reminder with it's ceremonial awarding, can contain all the memories and lessons of the expedition.

Before leaving the subject of ritual, a related factor is the sense of place. There are certain areas that have an invested sense of importance either by it's aesthetics quality, difficulty in reaching or it's previous history. Joseph Campbell speaks of the World Navel, an area where special powers reside and can give blessings to it's visitors (Campbell, 1968). The entire expedition focus of reaching a summit point not only makes the accomplishment deeply significant but also turns the peak into a center of personal importance. This is King Author's Avalon, the crusader's Jerusalem and Thoreau's Walden Pond. Similarly, geopity is a concept developed by Yi Fu Tuan.(Raffan, 1993) Simply put, certain areas are imbued with special significance by people's actions and belief. These ideas are not so foreign to any outdoor enthusiast, most of whom know of a certain place that has special meaning, where thoughts are quelled and a sense of peace prevails. Any solo site where someone stays for several days becomes deeply imbedded in the soloist's memory. For programs with an environmental focus, asking students to find areas that feel special to them is one the best ways of creating a relationship between the participants and the natural world.

Another method that enhances the student's experience as a mythical quest is relating the myths themselves. This can be a dramatic narration around a campfire or it can be as simple as talking about a movie at a rest stop. The effect, to varying degree, is the same. It places the student in the framework of the protagonist facing tremendous challenges for the ultimate reward. "An individual can get in touch with his or her felt emotions through those of the characters presented. The listener is no longer alone, but integrated into a continuum of humanity stretching over millenniums through archetypes of character, emotions and patterns" (Leonard, 1990). Basically, the listener sees him or herself as the characters that face similar challenges. It may not be demons or giants that they face but their fear of the elements, of losing direction and not being liked by other members of the group is the same. In telling stories, the students perceive their experience as a story as well. "Our lives are literally a story unfolding...

Good stories, well told, can help internalize messages like: have courage, take action, take responsibility, you are worthwhile, treat others with love" (Leonard, 1990).

Finally, it is not so important to use ancient myths. Reciting exotic tales increases their knowledge of other cultures but especially with younger populations, stories that they are familiar with may be more easy to relate to their own experience. As Joseph Campbell states over and over, it doesn't matter what time period or people a tale comes from, all stories are essentially the same. For example, the beginning sequence of *Raiders of the Lost Ark* is similar to the elements faced in a ropes course. "Indiana Jones went through all those obstacles to get the golden head. What are you reaching for at the end of this ropes course?" Perhaps this framing makes the participant think about why they are facing their fears or maybe it just gives them the confidence by envisioning themselves as the whip wielding hero. Either way, it may help them get to the end.

Perhaps the most useful and difficult to grasp lesson in relating adventure activities to the mythical quests is understanding the role of the guide. The job, the position and duties are as old as the stories themselves. For every hero on quest, there was someone who showed them the way. Consider the character of the wise old man: Merlin, Gandalf and Obi Wan Kenobi. They are never the main characters but play a significant role in providing guidance, skills and tools and sometimes protection. With the ability and experience that guides should have, it is difficult to not lead the way and solve every problem. Similar to Lao Tzu's philosophy on leadership, a guide provides the opportunity for the students to accomplish their goals themselves. That way, the final victory is not reaching the mountain peak but finding the courage and resources within to get there. Another clue that can be gained from the tales is to understand how the guides regard their charges. Even if the heroes first come to them as weaklings, idiots or cowards, they treat them like the champions they will become. During the hardships and trials, students may behave less than admirably. It is important not to place the behavior on the person but to treat it separatly, still respecting the individual. This increases their self-esteem which prevents such behaviors from occurring.

There are certain difficulties and even dangers in considering expeditions as mythical quests or rites of passage. In creating the group's

"culture", it is important not to 'steal' from another's. It is very popular to use Native American ceremony and totems in many adventure education and therapy programs. This has been widely criticized by the fact that one cannot understand the spiritual references and deeper meanings of a ritual unless brought up in that culture (Horwood,1994; Hall, 1992; Oles, 1992). But rituals can be created with imagination and keen perception of what is going on around you. Spending a couple of weeks with the same people develops a society whereas activities, totems and habits are observed and respected. Many programs have traditions that are followed reverently such as the Outward Bound pin ceremony for graduates who have done extremely well. However, the ceremonies and rituals of religions and nations have been in existence for generations beyond counting. Claiming that a program can enact a rite of passage can hazard an important transition in a person's life. There is the danger of going overboard. The extent of the community and the specifics of the ritual can have a deep influence on the stressed and vulnerable spirits of expedition members, especially young ones. Above all, do not form a cult. The leaders of adventure and expedition programs are responsible for more than the physical aspect of their students. Offering official initiation into adulthood and improper use of ritual are signs of poor judgement which no outdoor leader should posses. But proper, sincere development of methods and honoring the spirit of the adventurer in students can give special meaning and flavor to an expedition. So bring a book of your favorite stories, build shrines on your next trip and see what adventures can reoccur from the River Styx to the Rio Grand.

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Redesigning a Club Structure for the 90's

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Abstract

The Penn State Outing Club redesigned operational procedures to better able address fiscal, managerial, and leadership development concerns. The Club dissolved its old divisional structure, centralized operation, and split into two branches including: (1) Club officers, and (2) the Wilderness Instructional Leadership Development Program (WILD). The Club is run by an Executive Board that oversees a large committee structure. This paper addresses some of the problems of developing and implementing committee structures and offers some suggestions to effectively manage volunteer student-run committees.

Introduction

The Penn State Outing Club (PSOC) was formed in 1920 at The Pennsylvania State University. PSOC is currently one of the largest student-run volunteer organizations at the Penn State University Park campus with a current membership of over 1,400 members. The Club annually operates approximately 105 trips and instructional courses for over 1,800 participants. The Club also sponsors several special events including two kayak races and an annual collegiate Mt. Bike race. PSOC has recently centralized its old "divisional" structure and rewrote its constitution to address fiscal, leadership, and liability concerns.

Old Club Structure

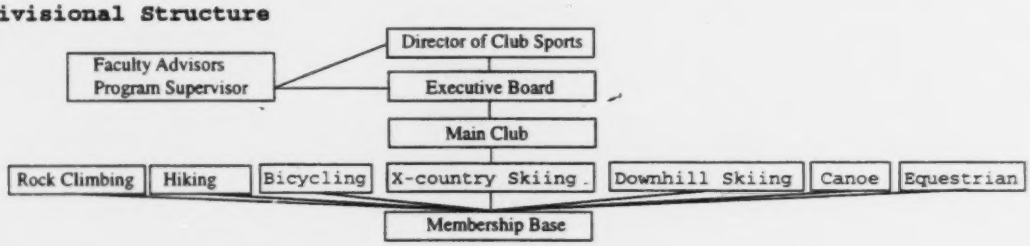
Formerly, the Club operated under a divisional format overseen by an Executive Board. The Executive Board consisted of Divisional Officers, Main Club Officers, and Advisors. Each activity (i.e. kayaking, x-country skiing, rock climbing, etc..) would elect officers that would be responsible for scheduling, training, equipment, and management of divisional funds. Advisors were elected and assigned to the various divisions to help provide activity specific expertise and a level of continuity. As a PSOC member, one could have access to all divisional activities and have voting privileges in

each.

Many of the problems with this structure are quite obvious. The first problem is leadership. Who actually trains and oversees the leadership aspect of the club as well as the individual divisions? Who determines who leads trips? It was found that in this structure the people that were actually leading the trips were the elected officers for each of the divisions. In essence, someone became "blessed" to lead trips by a simple vote of the membership. The membership base was not at an experience or skill level to be able to determine who would make a good leader. Obtaining a leadership position was reduced to a popularity contest among members.

In the divisional structure, it was the Advisor's role to help maintain a level of consistency and oversee the training of Club leaders. In the current liability climate, it seems that dedicated and qualified Advisors are somewhat unwilling to become involved. Each of the divisions, including the main club, would require an Advisor to oversee the leadership aspect of the Club.

PSOC Divisional Structure



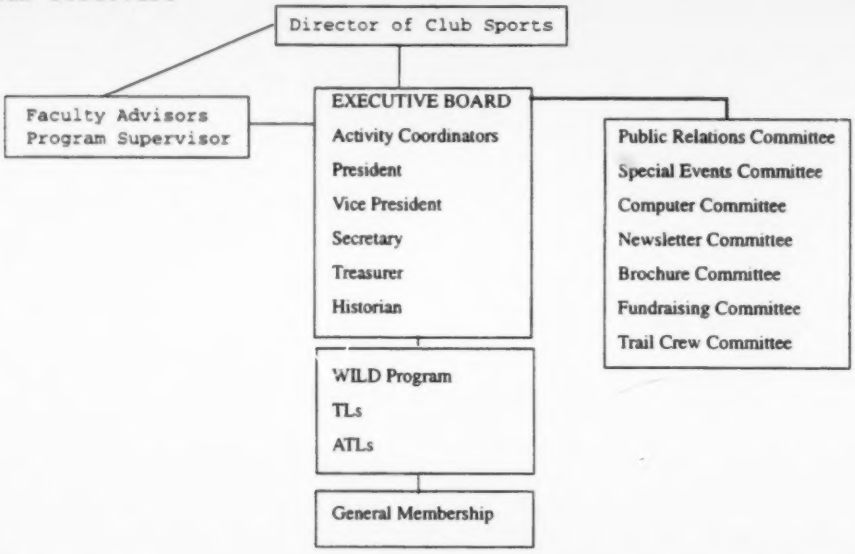
Each division of the Club maintained its own operational budget and officer structure. The divisions became an opportunity for small groups of individuals to get together and finance "personal" trips. There were very few introductory activities that allowed for skill development among the general membership. The emphasis was on advanced level trips. Cliques developed within each of the divisions and created an "us against them" mentality; the true definition of "division".

New Club Structure

To address fiscal and managerial concerns the Club sought to centralize its operational structure. A student-run committee, overseen by the Faculty Advisors and the Program Supervisor, designed a new structure for the Club. The Club dissolved the divisional format and divided into two leadership branches; (1) Club Officers, and (2) the Wilderness Instructor Leadership Development Program (WILD). The Club Officers are elected by the general membership of the Club. Their responsibilities are to manage the administrative functions of the club. The individuals involved in the WILD program are

involved in field leadership and the development of course/trip curriculum.

New Club Structure



The officers of the Club serve several administrative functions as well as oversee several student committees. The responsibilities are as follows:

President:
Organize and develop general membership meetings
Organize and develop agenda for the Executive Board Meetings
Oversee **Public Relations** Committee
Oversee **Special Events** Committee

Vice President:
Help to facilitate Co-op involvement
Collect of information for e-mail postings
Oversee the **Computer** Committee

Secretary:
Maintain executive board meeting minutes
Maintenance of staff and membership data bases
Oversee the **Newsletter** committee
Oversee the **Brochure** committee

Treasurer:
Document all financial transactions
Develop activity area budgets

Process all vehicle and room requests
Oversee the **Fundraising** committee

Historian:
Update and maintain the Club Slide show
Collect all PSOC publications and articles
Photograph all PSOC events
Oversee the **Trail Crew** committee

WILD is an apprentice style leadership development system where inexperienced leaders learn from seasoned Trip Leaders (TLs). Educational and training opportunities exist in the form of instructional workshops that are required of both Assistant Trip Leaders (ATLs) and TLs. As the leaders become more comfortable in their leadership style, they can assume greater responsibility. WILD staff are evaluated by a peer review system as well as by the Program Supervisor and Faculty Advisors. Each Activity Area maintains an Activity Coordinator (AC) that is elected by the TLs of the Activity Area. The AC is responsible for scheduling staff, planning trips, overseeing staff training, curriculum development, and helping to maintain effective documentation of courses and trips. ACs are also voting members of the Executive Board.

The Committee Structure

A student-run committee structure can be a very powerful and useful tool for outdoor organizations. It is a way in which students can channel their energy, contribute their area of expertise, and become empowered to make real and relevant contributions to the organization's success. This can also provide an excellent resume builder and a way for students to gain valuable hands-on experience.

When developing a committee structure, PSOC benchmarked several other successful student-run organizations at Penn State University including the IFC Panhellenic Dance Marathon Committee. The Dance Marathon is an annual event that is run by a 13 member student committee. The proceeds from this event benefit cancer research and the Four Diamonds Fund at PSU's Hershey Medical Center. The dance marathon is an annual event that generates over 1.3 million dollars for cancer research. The 13 member committee organizes over 1,200 volunteers and 540 dancers in this 3 day event. The Dance Marathon, by any measuring stick, is an incredibly successful event that is 100% student run.

Problems with Volunteers and Student-Run Committees

PSOC has discovered several problems developing and implementing effective volunteer student committees. The first and foremost problem is how to get people excited about volunteering their time to the organization? How do you get people excited about making flyers, advertising, and making phone calls? PSOC has also found that since all of the volunteers are full-time students it is difficult to achieve a high level of commitment. It seems to be very easy to get folks to sign-up for committees but a problem to get them to actually show up for the first meeting. Committee members can also become bogged down in academic commitments that take precedence over "extracurricular" activities.

PSOC offers the opportunity for students to contribute their area of expertise in a forum which allows them to develop their professional skills. On occasion, PSOC has to settle for something less than "professional" quality. After all, working on projects is part of the learning process and can be viewed as an experiential extension of the classroom, however, at what point does the administrator draw the "quality" line? When is it better in the long run just to hire a professional?

PSOC often asks people to represent our organization and work in conjunction with outside agencies. Students (as well as professionals) can make mistakes and can misrepresent the organization. At what point does a volunteer working for the organization get positive feedback, negative feedback, scolded, or reprimanded. After all, they are "just a volunteer". Careful consideration and framing of constructive criticism is essential. Volunteer's feelings are easily bruised and subsequently volunteers can be easily lost. Some of these issues can be very trying for professional staff and a challenge to find creative and effective solutions.

Effective Volunteer Management

Although student-run committees can be a very powerful tool to help run the day-to-day administrative functions of your organization, they can be problematic and may require a different management approach. PSOC has found several techniques and strategies to effectively manage student-run committees.

Spell out duties. Spell out exact responsibilities and brainstorm deadlines for projects. Each position should have a title as well as written duties and responsibilities. Committees need to have exact expectations and goals defined at the very first meeting. Every person needs something to do. If committees are not actively working on projects they quickly fall apart.

Create a "realness" to the position. PSOC requires that students go through an application process that includes a resume, essay questions, and interviews from both peers and the Program Supervisor. This process creates an atmosphere of competition and weeds out some of the less committed folks.

Create an aura around the position. People feel a sense of empowerment, status, and accomplishment by competing in the application process. Hype-up the position!!! People on committees need to have the power to be creative and to make relevant decisions.

Offer perks. The biggest perk is the ability to have real and relevant experience to add to a resume. Staff can also get equipment discounts at local sponsors and special equipment rental privileges.

Tangible Benefits: Volunteers need to see a connection between the work that they are doing and a benefit to either themselves or to the organization.

Open and honest communication. It is essential to have effective two-way communication. Develop a committee e-mail, phone, and address list as soon as possible.

Never take advantage of your committees and volunteer staff. Never ask anyone to do anything you would not do yourself and never ask anyone to do anything you have not done yourself. You can make exceptions to this rule if it is an area of technical expertise (i.e. www page, etc...).

Develop a method of evaluation. Plan a feedback and evaluation meeting with the committees to help improve operational effectiveness.

Thank yous and kudos. A heart felt "thank you" sure goes a long way in making everybody happy!!

Don't be "wishy-washy": Help volunteers to brainstorm their own deadlines and help them to assume ownership of the project. Hold people to deadlines and responsibilities and if they cannot "tow-the-line" find someone who can.

Conclusion

The Penn State Outing Club restructured and centralized its operational structure to better able address fiscal, managerial, and leadership development concerns. The student-run committee structure implemented at PSOC has proven to be a very powerful administrative tool. Although somewhat diffi-

cult to manage, student-run committees can be very useful to other outdoor organizations. This paper provided a few suggestions for managing student-run committees. By keeping a few simple rules in mind, student-run committees can be a very effective and rewarding experience for the volunteer as well as the outdoor professional.

PATH OF THE PROFESSIONAL

By

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This informal session was designed to be an interactive exchange between students and professionals in the field of outdoor recreation. The turnout was wonderful by both groups and a very informative get together resulted from it. My thanks go out to all of those who attended and participated. The following is an attempt to categorize the questions and answers into a useful reference for the future.

• Qualities that are sought after for any position:

Enthusiasm- the ability to push forward and know that mistakes are a part of the learning process;
Inquisitive- asking questions about the program, the skills required, and the opportunities that are available;
Practical Skill Base- can back up skills without falsifying or pretending to know more than you do;
Mentor- has sought out and studied under several different individuals, learned a wide range of operating techniques;
Initiative- are willing to get things going, set things in motion, take charge without being told;
Sincere- interested in improving the quality of people's lives through outdoor recreation, a genuine interest in other people;
Philosophy- want someone that is able to continue the philosophy of the program, team player, sound professionalism;
Publications- several people stressed the importance of being published through newsletters, newspapers, internet, or other mediums that show your ability to write about your experiences.

• How some of the professionals who attended have arrived where they are today in outdoor recreation:

Education- music teacher, photography instructor, outdoor educator at field camps, educational leadership instructor;
Business- marketing and management career;
Technical- factory engineering;
Military- recreation services within the armed forces, civil service programs to improve the quality of life, 3 yr. management trainee program with placement;
Internships/Graduate Assistantships- with different outdoor recreation programs;
Municipal Recreation Programs- public and private parks and recreation departments;
Guides- whitewater, backpacking, climbing, mountaineering;
Waterfront Management- sailing and marina operations;
Volunteer- national, state, and local organizations, can get the foot in the door by offering good experiences

• Is it necessary to have a recreation degree, Master's or Ph.D. to become a professional in this field:
  It is important to build on your education, especially if it is readily available through an assistantship or internship;
  Most position announcements look for a recreation or "related" degree, this allows for a wide range of interpretation which now includes many other fields;
  Some education positions would rather have the experience in teaching;
  Compliment undergraduate work with graduate work;
  Fundamental background is important- without master's yet with good experience, degree may be secondary to solid experience;
  Educational Route- it is important to continue for post-graduate degrees if interested in teaching, for some positions it is very important to have Ph.D., it is recommended to develop thesis or dissertation into outdoor related study if your degree is not in the field;
  Seek information to evaluate the importance of the degree versus program experience for the position you ultimately wish to attain.

• The balancing act between hard and soft skills:
  Quote of the day: "You are putting a ceiling on your profession if you only concentrate on hard skills, need to get administration and interpersonal skills as well.";
  Hard skills are almost second to the ability to interact with others;
  Find good positions that offer professional development through administration and public speaking along with hard skills;
  College is a good forum for developing hard skills through the outdoor program, but need to branch out and gain practical skills to interact with people;
  Can develop soft skills by communicating to others and getting involved;
  Document soft skills with the nature of the groups you work with;
  Work with a variety of groups;
  Professionals learn of your soft skills through discussion about your trips and other related hard skills.

• What other options are available besides outdoor recreation programs:
  Contract Work- can create opportunities through personal business, create an outstanding pitch and serve it up;
  Teaching- operating on real/peak experiences, getting out of comfort zones, using the outdoors for motivating individuals through education;
  Ropes Course Instruction- many companies available
  "Adventure is a Mentality"- can find it in virtually any location and activity, depends on how you present it.

• How to merge environmental involvement into outdoor programs:
  Think about the ways in which you can educate people about the environment using recreation as the vehicle;
  Focus on environmental awareness and education as the program goal;
  Stress your skills working with environmental issues when applying for a job;
  Not expected to know everything about the environment, seek out information regarding the areas in which you travel;
  Utilize the library and departments on the local university campus;
  Take classes that educate about the ecosystems where you are recreating;

Involve participants with the process and resources available regardless of location and type of trip;
Consult with professors and professionals regarding environmental activism;

- Additional suggestions for improving your marketability within the field:
  Document your trips with a journal or log;
  Increase public speaking experiences;
  Know what you want out of an internship or assistantship so that the professional can develop an adequate experience;
  Join associations and get involved;
  Utilize the "stepping stone" jobs to their fullest, do not get discouraged by the process;
  Think of questions for interviews, do your research about the position in which you are applying, it will show;
  Get involved early with the outdoor program;
  Know how your degree relates to the field when applying to a "related degree" position, sell yourself;
  Take time to enjoy your life through the travel and activities in which you engage, it is all legitimate and relevant to this field!

It is important to note the range of programs and backgrounds in which people have arrived into this field. There are many options out there for the individual that can harness personal skills that are applicable from other backgrounds. Be creative!

Please continue with your questions and comments at any time by contacting one of the professionals or students who attended ICORE '96. For a copy of the condensed biographies of some of the professionals, please contact me at the numbers listed on the ICORE mailing list.

My sincere thanks to the professionals that contributed to the future of the Association:
Patsy Kott, René Koesler, Tom Kopp, Tim Moore, Jim Rogers, Rodney Ley, Jenny Mackie, Audra McBride, Mike Lyons, Wayne Fett, Robert Jett, Alissa Falls, Jennilee Holbrook, Melanie Wulf, and those that I regretfully missed.

Will the Real Eco-Educator Please Stand Up?

Presented at the 10th Annual
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By

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Abstract

When the outdoor education profession began in earnest in the 1960's, there were few programs and they had little impact on the land. Supply of natural resources easily kept up with demand. Although some permits were required, access was rarely a problem. Now thirty years later, there are millions of Americans using the outdoors, many through the hundreds of programs in the U.S. including, those for rehabilitation, self discovery, education, research, access for people with physical disabilities, recreation, and physical fitness/endurance events. Some of these programs are having a greater and largely unexamined long-term impact on public lands through their increasing numbers of participants, large media attention, and the messages they convey to their students. Despite their potential for damaging the land, the net effect can be positive if instructors include proper curriculum in their programs.

As instructors and guides, we welcome all these career opportunities, but can the land handle all the use? Federal land management agencies have established regulations and permitting systems, and other public and private groups have formed partnerships such as Leave No Trace and Tread Lightly to educate about minimum impact, but outdoor professionals also need to be advocates for legal protection of these lands, from over use and mis-use.

Four Corners School was founded in 1984 to provide hands-on wilderness advocacy education to people of all ages and backgrounds. Through scholarships, teacher programs, and working with outdoor corporations, FCS has built a well educated constituency who care about and work for the land and wilderness designation, particularly in Utah. More outdoor programs and outdoor corporations need to work to protect the lands that support their business, if we are to sustain the outdoor education profession. This presentation will explore outdoor programming and its impact on federal wildlands in the United States, as well as address ways we can work to protect these lands using FCS and others as case studies.

Introduction

There is no denying that the outdoor education and recreation industry in the United States has grown dramatically in the last thirty years and will continue to grow over the next fifty.

Let me first define what I mean when I say the outdoor education and recreation industry. For the purposes of this paper I am referring to organized field based programs that take individuals into wild areas for use

as an outdoor classroom to educate about subjects such as natural and human history, outdoor skills, self-discovery, spiritual growth, or mental and physical health.

> *Outdoor adventure activities include all pursuits that provide an inherently meaningful human experience that relates directly to a particular outdoor environment-air, wind, water, hills, mountains, rocks, woods, streams, rivers, lakes, ice, snow, or caves. A certain amount of risk, adventure, exploration, and travel are involved, depending on the skills of the participants, and the nature of the activity. Competition between individuals and groups is minimal, whereas competition between people and their environment is the norm. The emphasis is not on winning or losing, but rather facing the challenges of a natural environment (Jensen, 286).*

My discussion will focus with how outdoor programs choose to deal with three areas of programming: 1) types of activities, 2) location of these activities, and 3) curriculum development. The types of activities my discussion will focus on are human powered adventure activities. The location of these activities will focus on those that take place on federal or state lands, especially wild lands. These activities specifically include backpacking, cross-country skiing, hiking, running, mountain climbing, rock climbing, kayaking, rafting, canoeing, mountain biking, camping, and the newest member of these types of activities---extreme sports races. The curriculum I will discuss is what subjects have been included in the past and what should be included in the future.

I am discussing these types of activities, their locations, and curriculum because we have a limited supply of natural resources in the United States-i.e. wildlands, and an ever-increasing demand from recreational users--for human powered activities as well as mechanized activities such as hunting, fishing, snowmobiling, and other mechanized adventure sports. I will not focus on the mechanized recreation industry and instead focus on the human powered industry, because as professional educators I believe we have limited access to educating the mechanized recreation industry audience. Other educational programs such as Tread Lightly and Leave No Trace reach this user group through the federal agencies, but university and private sector curriculum has less impact on them. I will also be discussing whether we should meet all demand, in other words, is endless growth in outdoor recreation possible or desirable and how do we limit or control growth?

Typically human powered users are in middle to upper income brackets, college educated, with the leisure time and funds to participate in an instructor led group adventure (Widdekind,3). As many as 90% of all white Americans, with annual incomes of $25-100,000, and at least some college or high school education participate in some form of human powered recreation (Widdekind,3). As professional educators, especially in the university realm or as guides and interpreters we mostly have contact with those individuals that participate in human powered recreation activities. While it is true that the demographics are changing as participants are aging and users' ethnic backgrounds are becoming more diverse, it will take a long time for Black and other minority user groups to catch up with use by Whites. Use of the outdoors by non-whites will contribute greatly to the overall increase in future use of the outdoors (Cordell et al, 13).

Many people participate in outdoor activities on their own or with friends and not in organized groups. However, most of the human powered recreation users

at some point in their lives, and more likely numerous times, participate in some form of organized group outing which has an instructor, who has the implicit responsibility to educate their students. If that instructor uses effective curriculum on their program, they can make a difference in the future actions of that individual in regard to how they behave toward wildlands. I will be using a Four Corners School program and a program at the University of Montana as examples of how I believe we as professional outdoor educators at the university or military level or in the private sector can adjust curriculum to protect the limited supply of natural resources, and keep pace with the ever-increasing demand for our product--outdoor education--if we are to have an outdoor classroom in the future.

Trends in Supply and Demand of Outdoor Classroom Opportunities

The demand for outdoor recreation has grown and will continue to grow over the next fifty years. Factors influencing this increase in demand are a growing population, an increase in per capita income, more accessible transport to sites for recreation, and larger blocks of leisure time for larger segments of society. The 1986 Presidents Commission on America Outdoors reports, *over 75% of Americans consider themselves "outdoors" people* (Ewert,122).

The demand for outdoor education and recreation opportunities is projected to increase by 75% to 190% over the next forty years, in such activities as day hiking, backpacking, camping, canoeing, kayaking, rafting, cross-country skiing, biking, wildlife observation and photography (Widdekind,7).
It is unlikely that the supply of wildlands and associated facilities available to users will come close to meeting this demand. *"It appears that by the year 2000 demand for outdoor adventure opportunities as they currently exist will exceed the supply of natural resources, for example geographical locations needed to provide these opportunities"* (Ewert,147). In addition funds needed to manage these lands by federal, state, and private agencies has steadily increased over the last ten years, while funds awarded have steadily decreased (Widdekind,16-17,20). *"The greatest threat to outdoor recreation is inadequate support for the acquisition, maintenance, and operation of the places people go to enjoy recreation"* (Widdekind,21).

Lack of supply can be caused by several factors. One is simple overuse of the resource or "loving it to death", that results from too many users, lack of funding for law enforcement, or an inadequate management plan. Another factor that can affect supply is lack of facilities and staff to manage use, such as camp areas or sanitation facilities, a shortfall of educational staff, or a lack of funds for both. These factors can adversely effect soils, wildlife, water, air, scenic values, or vegetation(Cordell et al,81-85).

Supply can also be impacted by the actions of states and communities and thus ultimately politicians. The creation of more wildlands for recreation is politically determined and we depend on Congress for allocation and federal agencies for management after designation. *"Assuming that Congress continues to periodically add wilderness acreage on a state-by-state basis throughout the next decade, the recreational supply of wilderness, in general, may be adequate in terms of a national per capita acreage. However, the resulting distribution of the wilderness will require more time and energy by Americans to gain access to it, particularly among those living in the East (Cordell et al, 72).* As you can see there is evidence from various reliable sources that supply of natural resources is not likely to meet demand for outdoor activities.

Trends in Types of Outdoor Activities

Let me give you a brief history of the types of outdoor activities Americans have desired and are now desiring to participate in. In the 1940's through the 1950's environmental education was in the form of school camps and teacher education programs. When outdoor education began in earnest in the 1960's in the United States areas used diversified, program numbers increased, and curriculum included expanded dramatically. In the 1970's the term "environmental education" developed and the concept of "eco-education" expanded even more.

In the 1980's and 1990's the explosion in educational programs and recreational outfitters really hit. Federal expenditures for recreation increased from $75 million in 1960 to $1.4 billion in 1980 along with many new Congressional mandates for management such as the Wilderness Preservation System and the Land and Water Conservation Fund. In 1982 the Outdoor Recreation Policy Review Group stated *"Even with the tremendous growth in the involvement of the private sector, there is evidence that outdoor recreation opportunities are contracting overall, rather then increasing to meet increasing need"* (Cordell et al, 6). This led to the formation of the Presidents Commission on Americans Outdoors who recommended the creation of a *"prairie fire of action"* to protect, restore, and provide local recreational lands (Report of the Presidents Commission, 76). *This report stated that when the prairie fire catches, we will create a lasting corps of people who care about environmental quality and scenic beauty. We can build a movement of Americans investing in recreation opportunities for the future* (ROPC, 76).

In 1992 in the educational realm, the book Wilderness U describes 40 credit granting field study courses at the university or college level, 32 field institutes or natural history associations, 27 clubs and national associations, 55 tour agencies or lodges, and 43 miscellaneous organizations which span the gamut from intensive formal education in the outdoors to guided tours led by a trained naturalist that do not offer college credit(McMillon 13-142). According to Jerry Mallet of the Adventure Travel Society by 1991 between 45 and 50 million Americans engaged in some types of adventure or nature vacation annually. Over 25,000 recreational outfitters at that time served this demand (McMillon, 1). There is however a difference between recreational outfitters and educational programs. As educators and programmers we have an obligation to educate.

Now in the 1990's a new aspect of the outdoor recreation industry has been introduced--extreme sports events or as some call it adventure racing. As defined by the Adventure Racing Association, adventure racing is" *any race which uses three or more means of locomotion, both human powered and/or mechanically powered, and is run in wilderness or remote areas with low population density*" (Crawford, internet). Typical examples of adventure racing are: the Olympic Pentathlon, the Raid Gauloises, the Eco-Challenge, the Southern Traverse, and the Thredbo Enduro." These events are multi-day, competitive, and involve large numbers of racing teams (racers and media combined can include up to 700 people) competing in multi-sports activities over a long distance and for up to ten days. As this is such a new sport I could find no statistics as to the number of participants annually, but in 1995-6 there were 12 such races(Crawford, internet). According to Michael Hodgson an Eco-Challenge competitor and a Technical Editor for Outdoor Retailer Magazine, he *"expects the extreme sports industry to become huge very rapidly"(Hodgson,personal conversation).* The outdoor retail industry must agree as they *" spent $50 million in 1995 to sponsor adventure related sporting events, triple the amount spent five years ago"*(Strategic Research,

1). However, according to Jack Crawford of the newly formed Adventure Racing Association, *"due to environmental regulations and pressures in the United States, the sport will not grow very fast in this country, but instead will expand outside of the U.S where races are welcome and regulations less strict"(Crawford, personal interview).* The influence and impact of these activities is greater than most other outdoor activities, as they involve many more participants than most outdoor activities and they are conducted over a concentrated period of time. These activities also have a greater impact because they occur over large areas of land and their message is broadcast widely on nationwide cable and network to as many as 1 billion people annually (Eco-Challenge, internet).

Trends in Locations of Outdoor Activities

Lands available for outdoor activities include primarily federal lands, but also state, local, and private. Over one-third of the United States, 690 million acres, consists of federally managed lands. Of these federal acres, 89 million acres are designated wilderness. State and local governments manage over 54 million acres of recreation lands (Widdekind,15). The federal agencies responsible for land management are the National Park Service, Bureau of Land Management, U.S. Forest Service, Fish and Wildlife Service, and the Bureau of Reclamation. All of these agencies with the exception of the National Park Service manage lands for multiple uses including recreation. In addition the bulk of the acres used for recreation on federal lands exist in the west, approximately 95% of all federal lands. Factors influencing the trends in where people choose to recreate include the availability of opportunity, age, ability and disability, race, education, and income (Cordell,et al,7-8).

From about 1960 to 1980 there was a rapid increase in use of these federal lands. From 1980 to 1985 this increase slowed down, largely matching the increase in U.S. population and the economy and work habits of the population. Since 1986 wilderness use has begun to increase again with increases expected to be 30% for most activities by the year 2000. Now new activities are occurring, and are being substituted for some of the formerly popular activities. Extended long distance trips are being replaced by more frequent, close-to-home trips, which will put more pressure on wildlands closer to urban areas (Cordell, et al 8). The demand for recreational activities by the year 2040 is expected to grow by as much as 200% for land based activities with lesser, but still significant growth occurring in water, snow, and ice activities as well (Cordell, et al, 43-45). By the same token if recent trends continue, the amount of land, water, snow, and ice resources available for recreation is expected to decrease by as much as 30% to 40% by the year 2040 (Cordell et al,59) due to conversion of rural private lands to other uses, expansion of urban areas, and federal public lands being turned over to state or tribal entities(Cordell et al, 25).

Trends in Curriculum Development in Outdoor Education

The education of professionals and curriculum development in the university and college level in the outdoor recreation field has seen a great deal of growth over the last fifty years as well. In the 1960's the National Conference on Professional Preparation recognized recreation and park administration and camping and outdoor activities as new curricular areas on the college undergraduate level. Five years (1965) later other subjects were added at the graduate level; recreation programming,administration of recreation services, and natural resource management for recreation. Three (1968) years after that this same group identified the need for more qualified

leaders and more standardization of curricula in the area of education about the outdoors (Jensen 363-354). By 1975 there were more than 200 universities offering curricula which led to a Bachelors degree in outdoor adventure activities (Ewert, 123) and now there are as many as 600 university level programs, not all degree granting and approximately 5300 outdoor programs overall nationally.

Similarly in the private sector there are numerous programs to train outdoor leaders like the National Outdoor Leadership School, Outdoor Leadership Training Seminars, Boulder Outdoor Survival School, and the like. The Adventure Racing organizations have followed suit. In the last two years adventure racing schools to train racres have begun, such as Presidio Adventure Racing Academy and the Eco-Challenge Adventure School. There seems to be an inherent conflict in curriculum development however, between university and private sector curriculum, the Wilderness Act itself, and adventure racing curriculum--as in the first two competition is not taught or part of the law, and in the third competition is the main point.

How Curriculum Development Can Create a "Prairie Fire of Action"

Curriculum for outdoor leaders currently includes information on skills, natural sciences, teaching methodology, leadership training, and outdoor recreation management and policy. For some time, the profession has been looking at issues such as certification, accredidation,and professionalization (Ewert, 193). Little attention however, has been paid in this field to training outdoor leaders in environmental activist skills, critical thinking skills and teaching environmental ethics in degree granting programs or private outdoor leadership programs.

According to C.B. Pearson, Director of the Environmental Organizing Semester at the University of Montana, "*environmental activism is seldom included in university level curriculum especially at the undergraduate level*". Mr. Pearson further states, "*much has been done to repackage and remarket hard science for students, but activism is often avoided at universities because it is controversial*".(Pearson, personal interview). David Orr states, "*A constituency able and willing to fight for the long-term human prospect must be educated into existence...What are schools, colleges and universities doing to reeducate the citizenry or their own faculty, administration, and trustees for that matter? The short answer is 'not nearly enough', and in most cases the answer is 'nothing at all'" (Orr, 126).*

In specific outdoor education curriculum must include experiential lessons in how to teach environmental ethics, critical thinking skills and environmental activist techniques. The 1986 President's Commission on America Outdoors Report recommends that, "*each geographic community and community of interest develop an outdoor ethic and work towards reflecting that ethic in personal and organizational action."(PRAO,81)*

Curriculum such as teaching environmental ethics, environmental activism skills, and critical thinking skills are important because students need to develop the ability to decide what is ideal human behavior for them with regard to their relationship to the environment. They must also develop skills that enable them to become action-oriented members of their community to solve environmental problems and the conflicts that surround them.

Some of these curricula goals could be accomplished by using environmental issues in local areas as a springboard for discussions relating to land use concerns all over America, Then students can develop the ability to analyze

opposing viewpoints and form a personal opinion, thus helping to bring balance to the environmental discussion and the ability to make informed decisions. Another curricula goal, environmental activism skills should include how to use critical thinking skills, the political system, and scientific knowledge to effectively protect wildlands. These subjects are essential to include in university and private sector programming as well as in individual guides and interpreters lesson plans.

Students often become motivated to protect wildlands while in the wilderness setting. We can strengthen this motivation through discussion of facts and concerns about a particular area. But motivation must also be coupled with effective ways to be activists in their own communities through participation in local groups, research on issues, attending hearings and then making an informed decision on which to base their actions.

Case Study: A Program that Helps Create a "Prairie Fire of Action"

Four Corners School of Outdoor Education, a private non-profit outdoor orgainization, created a course called Teaching Environmental Ethics to help teach teachers some of the above skills. Over the seven years we have run this course we have educated over 150 teachers who have used this information in their Kindergarten through college level classrooms and in non-traditional teaching settings such as Outward Bound and NOLS.

The course, Teaching Environmental Ethics, was created by myself as, Director of Four Corners School of Outdoor Education with the help of Hardy Redd, a Utah rancher and former Utah legislator. Each teacher trained multiplies the impact of the information because each teacher reaches 15 to 40 students a year giving them the tools they need to make educated choices about land use, both in their respective states and nationwide and act on them in their own communities.

The course is structured to be hands-on and community based. Over eight days it takes teachers out of the classroom and to places where decisions are made. Guest speakers spark personal and sometimes heated discussions on the participants' sense of place, understanding of the history and economics of land uses, conflict resolution skills, and environmental and philosophical concepts.

Program goals are:

To help teachers help their students develop critical thinking skills.
To provide teachers with the skills needed to identify local environmental issues which can help students understand the biological, economic and emotional cost of land use decisions.
3) To help teachers develop classroom activities which will enable students to create and examine the belief system from which they will make environmental decisions.
To provide teachers with the ideas and activities to help students become local and national advocates for their chosen environmental position.

Teachers attending the course have felt it to be a very valuable experience. The following quote attests to this:

Bonnie Robinson,from New Orleans, Louisiana said,*"I appreciate the opportunity to attend the course which laid the foundation for my decision to enter into the environmental career field... I wanted to learn the steps I could take as an educator to facilitate the understanding of the connection between our*

actions and the resulting environmental impact. I wanted to feel and I wanted my students to feel that their actions made a difference."

Ways in which teachers have used their experience include:

Dianne Hormann a fourth grade teacher in Ft Wayne, *Indiana uses her experience with her 100 students, the teachers, and parents in her school. She is also in charge of Program Development at her school and uses this program in curriculum development.*

Terry Pipkin a third grade teacher in Clovis, New Mexico *has prepared a workshop for her students on Teaching Environmental Ethics, which includes lesson plans and curricula on environmental issues. She has also held workshops in her church youth group.*

Fonda Mullins, a teacher in Richmond, Indiana, *presented a paper at the National Art Education conference in 1995 using her experience on this course.*

Case Study:Another Program that Helps Create a "Prairie Fire of Action"

In 1996, the Environmental Studies Program at the University of Montana began its first Environmental Organizing Semester, directed by a veteran organizer C.B. Pearson. C.B. has over twenty years environmental and public organizing experience with Ralph Nader. The sixteen week program focuses on helping students to be better prepared to put ecological values to work in a career of winning positive environmental changes.

The program, like FCS's is experiential, with extensive work on real issues, problem-solving skills, and training on key civic skills. Its goals include:

working on strategies and tactics for solving environmental problems
mentoring opportunities with veteran environmental activists
planning and conducting a series of real-world projects
extensive reading and discussion led by experienced scholars
leadership training for students serious about a career as and environmental organizer
study in an area of the country where many pressing environmental debates rage

Student comments have included:

"Continue to let this course be taught at least every year. It has been the best semester of my life and I have never been more satisfied with education at a university."

Projects accomplished by the students include: a fundraiser for a local green belt campaign-initiative to purchase elk habitat on the edge of Missoula, plan and execute a petition drive in support of two Montana initiatives, and an examination of Missoula's trash to see how much of it could have been recycled.

The Responsibility of the Outdoor Education Professional

As an outdoor education professional we have an obligation to protect our outdoor classroom. We must do that not only so that we may have jobs in the future, but so that we can help human and other species survive into the next millennium. As "influencers" of others--i.e. teachers--we can ensure that this message gets to our students and thus we will help create a "prairie fire

of action" for protection of this essential and magnificent resource--the wildlands of the United States, our outdoor classroom.

The question still remains, given the impacts of any activity on wildlands beyond natural processes, is growth in demand good for growth's sake? Is there a limit to acceptable growth in order to maintain quality recreational experiences? Just because demand is there, and rightly needed due to the impacts of an ever increasing population, and the stresses and strains of urbanization and, should we meet it--or strive to preserve the quality and quantity of the outdoor experience and the ecosystems themselves?

I believe that if we as professional educators work, and teach our students to work, toward preserving the wildlands we have, creating additional wilderness, and designating additional funding to manage these resources, that we can meet most future demand. Ultimately, however I do not believe we can or should meet all future demand for outdoor experiences. I believe that the impact on the resource and its inhabitants will be too great and the quality of our individual and group experiences will decrease too much. We are already facing large problems with overcrowding on lands near urban areas, user conflicts, wildlife, water, soil, and air degredation, an unequal distribution of wild areas nationwide--with over 95% of wilderness lands in the western states, and lack of funding for adequate management (Cordell et al, 73-85).

From my personal experience,I believe that most guides do not regularly include action oriented curriculum in their daily lessons. Nor do I believe from the research I have done, that universities include this curriculum in their degree granting programs very often. I believe that if we do not update our curriculum to educate our students to be effective activists, and they do not teach their students in turn, demand for outdoor recreation opportunities in this country will have to be filled in other ways. That could include, going to other countries to fulfill demand, waiting in line for opportunities, or looking for other ways to fulfill demand--such as relying on multi-media coverage, less land intensive opportunities like ropes courses, or by using opportunities such as virtual travel on the internet.

As outdoor educators we control the message that goes to our students. The question now is--how can curriculum, in both traditional and non-traditional settings, in universities and in the private sector, keep pace with the decreasing supply of natural resources for our outdoor classroom and the increasing demand for their use? I believe that we can do this by teaching our students, and asking them to teach their students in turn, critical thinking skills, environmental activists skills, and how to help their students develop an environmental ethic and act on it in their own communities. In this way we will begin a "prairie fire of action".

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LIMITING EMPLOYEE TURNOVER THROUGH JOB SATISFACTION AND COMMITMENT

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TURNOVER

Human Resources have been a vital part of business since the industrial revolution. Many theories have been applied to the problems associated with staff and many working solutions to staffing problems have been developed. Early theories regarding human resources include Abraham Maslow's Hierarchy of Needs, Douglas McGregor's Theory Y and Theory X, Frederick Herzberg's Motivation/ Hygiene Theory, and finally, Lyman Porter and E. E. Lawler's Equity Perception Theory (Mathis and Jackson,1994, p. 94-96). All of the theories attempt to explain and predict staff behavior in relation to their work and organization. Maslow and McGregor attempted to explain behavior through needs assessments or satisfaction of needs. Herzberg, Porter and Lawder attempted to explain staff behavior through an understanding of motivations, which in turn has effects on commitment. Satisfaction and commitment have been shown to "each contribute uniquely to the turnover process" (Tett and Meyer 1993, p. 279).

Turnover "occurs when an employee leaves an organization and has to be replaced". (Mathis and Jackson, 1994, p. 102; Tett and Meyer, 1993, p.262). In defining turnover, a distinction should be made regarding separations versus acquisitions of staff. Separation occurs when personnel leave, acquisition occurs when a vacant position is filled or a new position is created. When calculating turnover the sample size (n) must not be added to for the time period being calculated, (if one separation and one acquisition occur in the same time period, turnover is calculated without the addition of the acquisition), otherwise it appears that zero turnover occurred (Tett and Meyer, 1993, p. 262) (Appendix 1).

In the employers view turnover can be positive, negative, involuntary and voluntary. Positive turnover occurs through promotion, and retirement. Turnover can also be considered positive when unproductive or undesirable staff leave voluntarily. Involuntary turnover can be defined as "termination for poor performance or dismissal for reduction in force" (Barry and Mount 1994, p. 515-535). Negative turnover occurs when good staff leave voluntarily. Many causes of voluntary turnover have been dentified in the literature. These include work related factors, external factors, personal characteristics (Cotton and Tuttle, 1986, p.57), perceived structure, organizational processes, organizational climate (Decotiis and Summers, 1987, p.459), and length of employment (Porter, Steers, Mawday, and Boulian, 1973 p. 608; Mathis and Jackson, 1994, p. 103). Through Meta Analysis three variables are consistently linked to turnover, these are, over all job satisfaction, commitment, and turnover intention (Cotton and Tuttle, 1986, p. 55-70; Tett and Meyer, 1993, p. 259-293).

JOB SATISFACTION

Job satisfaction is a positive emotional state resulting from the appraisal of one's job experiences (Mathis and Jackson, 1994, p. 98). This most closely relates to the fulfillment of needs and expectations of the employee. Job satisfaction can be discussed as *job design* (the work itself), *compensation* (pay), and *recognition*. Elements of job design which promote satisfaction are clear standards and performance expectations, elimination of role conflict or ambiguity as part of perceived structure (Decotiis and Summers, 1987, p. 458), and the elimination of task repetitiveness (Cotton and Tuttle, 1986, p. 58). Clear standards and performance expectations should be set out in the Job Profile. The Job Profile consists of a job title, the classification of the job, a salary or hourly pay range, major functions, minor functions, level of supervision, supervision of subordinates, minimum required knowledge, skills and abilities, and minimum required education, training and experience (Appendix 2).

Elimination of role conflict and ambiguity can occur when job fit is considered. Study indicates that performance quality problems often occur because personnel are not well suited to their positions, (Batson, 1991, p. 530) or their knowledge skills and abilities do not match the job requirements. This occurs in the outdoor recreation industry when a field or technically competent instructor is promoted to an administrative or program coordination position without proper training or retraining. Task repetitiveness can be reduced through job characteristics such as enlargement, enrichment, and task significance (Daft, 1994, p. 531-535; Mathis and Jackson, 1994, p. 104-108). Job enlargement is achieved through providing variety and challenge. In outdoor recreation this could mean designing a job which combines gear maintenance, customer service, administrative tasks and field work. Job enrichment provides for an increased level of responsibility for the employee. Planning, implementation, controlling and evaluation of a project as a whole would provide job enrichment. In the outdoor industry a project could be as basic as building storage bins for equipment or as complex as the creation of a new instructional program. Task significance is the degree to which the job is perceived to be important, as such significance is very subjective. Importance can be attached to any job by ensuring that recognition for good performance is given for every job, and by highlighting the impact that every performance has on other people.

Equity Perception Theory can explain compensation satisfaction as it relates to job satisfaction. Personnel will evaluate their effort and work production and weigh this against the benefits or compensation received from the company. If an inequity between effort and compensations is perceived then job satisfaction will be decreased. Compensation is generally divided into pay, benefits and incentives. Minimum pay and benefits are regulated by legislation such as the Fair Labor Standards Act, The National Labor Code, Workers Compensation Act, The Social Security Act, and The Americans with Disabilities Act, as such, pay and benefits are frequently less adjustable then incentives. Incentives are the part of compensation that employers can be creative with, incentives in outdoor recreation could include the opportunity to apprentice on backcountry trips, use of equipment, staff clothing, professional development and training, social activities with co-workers, staff backcountry trips, or the opportunity to purchase outdoor equipment at cost. An important element of incentive compensation is recognition. Recognition is a form of compensation which in some instances is valued more than monetary remuneration and if lacking can have significant negative effects on job satisfaction (Decotiis and Summers, 1987, p. 459). Recognition in the outdoor industry can be given through job titles, inclusion of staff profiles and pictures in publications, posted recognition of improved performance, or recognition for certifications.

JOB COMMITMENT

Job commitment can be defined as allegiance to an organization (Mathis and Jackson, 1994, p. 92), or in terms of the strength of an individuals identification with and involvement in a particular organization (Porter, Steers, Mawday, and Boulian, 1973, p. 604). Commitment has as its theme the notion of exchanged expectations between an organization and its members, and a commitment to meet those expectations on the part of the organization and the employee (Decotiis and Summers, 1987, p. 467). If allegiance, identification and expectations of the employee are similar to and shared by the organization, commitment by employer and employee should both be present. Employer allegiance to the employee has been tested in the last two decades and come up short. Down sizing, layoffs, mergers, and early retirements have all contributed to employee displacement and as a result decreased commitment.

The relationship between identification and commitment is very interesting. Three types of commitment and the areas of identification are, commitment to the organization; commitment to the profession and commitment to the community (London and Howat, 1984, p. 80). Individuals who identify with the organization are unlikely to leave for reasons such as pay or promotion. These individuals share internalized goals and values similar to the organization. Commitment to an organization has as its primary source the intra-organizational experiences of the individual (Decotiis and Summers,1987, p. 453). Personnel who identify with their profession may commit longer to a company that provides them association with that profession, but ultimately their level of commitment may decease to the point of separation. Commitment to the community by employees may also induce them to commit to an organization that operates in that community. This also is a weaker commitment than organizational (London and Howat 1984, p. 80).

Expectations of employees vary, but generally "individuals come to an organization with certain needs, desires, skills, and so forth, and expect to find a work environment where they can utilize their abilities and satisfy many of their basic needs. When the organization provides such a vehicle... the likelihood of increasing commitment is ... enhanced" (Steers, 1977 p. 53).

TURNOVER INTENTION

Turnover intention is an attitudinal measure which is strongly influenced by satisfaction and commitment. Porter et al have found that "attitudinal measures of factors associated with turnover do not remain constant over time", and that there is a significant change in attitude as the date of departure actually approaches. This means that if an intention test is applied to a group of employees and someone scores high, they will be very likely to follow through with their intentions in the near future. The degree of attitude change has been shown to be influenced by decreasing job satisfaction and commitment to the organization (Tett and Meyer, 1993, p. 261).

SUMMARY

EFFECTS OF INTENTION, SATISFACTION AND COMMITMENT ON TURNOVER

Three main theories have been suggested to explain the relationship of intention, satisfaction and commitment on turnover (Tett and Meyer, 1993, p. 261). The *satisfaction-to -commitment mediation model*, suggests that commitment takes longer to develop and is more stable than satisfaction, and therefore has more effect and a dampening effect on turnover. This theory is supported by Porter et al, "We would expect that a relatively greater amount of time would be required for an employee to determine his level of commitment to the organization than would be the case with his level of job satisfaction. This process is likely to result in a stable and enduring level of commitment" (Porter et al, 1973 p. 608). The *commitment-to-satisfaction model* suggests that changes in commitment can be expected to have only indirect effects on turnover and that commitment predisposes satisfaction with a job, through a halo effect. The *independent-effects-model* suggests that commitment and satisfaction are related but that they each have unique effects on turnover intention and eventual turnover outcomes (Tett and Meyer, 1993, p. 261). The three models are distinguished by the degree of influence attributed to each variable on turnover outcome.

Results show that intention, commitment and satisfaction all effect turnover. According to the Meta Analysis intention is the strongest predictor of turnover (Tett and Meyer, 1993, p. 286). Satisfaction is the next strongest predictor of voluntary turnover, followed by commitment (Tett and Meyer, 1993, p. 286; Decotiis and Summers, 1987, p. 467). To summarize, general attitudes toward the organization may be more important in the decision to remain than the more specific attitudes toward one's particular job (Porter et al, 1973, p. 608).

LIMITING TURNOVER THROUGH JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT

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APPENDIX 1

TURNOVER CALCULATION FOR OUTDOOR RECREATION

1. Calculate turnover by distinct work units such as full time or partime employees, or gear maintenance worker or program coordinator.

2. Calculate turnover as often as you determine necessary,calculations are common for monthly, quarterly and yearly figures.

3. Size of the work force determines which calculations to use,the following three calculations could be used with some utility for work forces of 100 or less individuals.

TURNOVER CALCULATIONS

1. Crude Separation Rate:

$$\frac{\text{Number of employee separations during the Month}}{\text{Number of employees at mid month}} \times 100$$

2. Crude Accession Rate:

$$\frac{\text{Number of employees added during the month}}{\text{Number of employees at mid month}} \times 100$$

3. Stability Rate:

$$\frac{\text{Number of beginning employees who remain during the period}}{\text{Number of employees at beginning of period}} \times 100$$

APPENDIX 2

THE UNIVERSITY OF CALGARY - CLASS SPECIFICATIONS

A953 PROGRAMMER/CONSULTANT, CAMPUS RECREATION

A. FUNCTION OF THE JOB CLASSIFICATION LEVEL DEFINITION

Reports to a Program Area Manager or a Recreation Program Supervisor, Campus Recreation. Acts as an instructor leader or consultant for specific programs, courses, trips or other recreational services and is responsible for the day-to-day administration of clerical, physical or technical support services. Is responsible for program registration activities, equipment booking and rentals, maintenance of appropriate inventory levels of equipment and gear. Inspects equipment for proper condition and operation. Provides consulting services in field of specialization.

B. CHARACTERISTIC DUTIES AND RESPONSIBILITIES

1. Program Services

Leads and/or instructs courses, trips, workshops or other specific recreation activities: establishes course and trip format/contents.

Provides consulting services in field of specialization.

Organizes program or course requirements and logistics: includes making arrangements for equipment, facilities and other resources.

Prepares and maintains program/course description and manual.

Is responsible for the operation of a major recreational service or activity centre.

2. Financial Management and Administration

Prepares and monitors budgets of specific program areas (i.e., courses, trips and workshops).

Recommends activity related pricing (i.e., courses, trips, and workshops).

3. Personnel Management/ Supervision

Assigns, directs and supervises the work activities of subordinate staff: primarily involves supervision of recreation support staff and some part-time instructors.

Supervises casual recreation staff, (i.e., Recreation Services Workers I or II).

4. Equipment, Facilities and Resources Management

Determines the need, and makes arrangements for required equipment, facilities and other resources.

Supervises and performs maintenance and repair work of equipment, gear and facilities: is responsible for the general cleanliness/ orderly appearance of recreation areas.

5. General Administrative Responsibilities

Supervises customer service and equipment inventory operations; includes responsibility for front-line customer service operations.

Deals with special customer requests and complaint; handles/facilitates special requests for rentals, trips and courses.

Oversees equipment rentals and merchandise sales.

6. Other

May be required to assist in the day-to-day administration of other specific recreation programs or activities.

7. Performs Related Duties As Required

C. MINIMUM REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

1. Instructor level proficiency in at least one recreation field; current certification is required. Physical skills and abilities as may be required by the position.

2. Technical knowledge of equipment use and repair.

3. Thorough knowledge of required administrative procedures and system; includes knowledge of computerized systems for registration, bookings, rentals, etc.

4. Thorough knowledge of safety policies and procedures.

5. Good oral and written communications skills. Ability to interact in meetings, course, trip or presentations involving public speaking.

D. MINIMUM REQUIRED EDUCATION, TRAINING AND EXPERIENCE

1. A Bachelor's degree in Physical Education, Recreation Administration or Business Administration.

2. Current instructor level certification as may be required by the position.

3. Current First Aid and CPR certification

4. A minimum of one year's experience

or

5. An equivalent combination of education, training and experience.

APPENDIX 3

RETENTION STRATEGIES

TURNOVER

1. Understand why you have turnover, use exit interviews conducted by an outside agency.
2. Determine if your turnover is positive or negative.
3. Track your turnover at appropriate times for your program or business.
4. Set rules for your cost accounting and follow those rules, use generally accepted accounting principles.

JOB SATISFACTION

1. Have clear job descriptions and detailed performance specifications.
2. Use enlargement and rotation via inshop work, administration work and field work.
3. Use enrichment and task identity via projects.
4. Insure job fit- match the knowledge, skills and abilities of the staff to the job or retrain.
5. Use alternate job formats such as teams or partners.
6. Use incentives when possible as part of compensation.
7. Monitor job satisfaction through surveys.

COMMITMENT

1. Pay attention to internal and external trigger events, such as a change in the job specifications, an increase in an employee's skills, or a change in an employee's lifestyle such as marriage or family obligations.
2. Promote discussion of expectations and needs.
3. Select for commitment by choosing individuals who posses values and goals similar to the organizations.
4. Monitor commitment through surveys.

ADAPTIVE TRAINING'S AFFECT ON SELF-PERCEPTION

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ABSTRACT

Challenge initiatives are used by many agencies to facilitate a variety of therapeutic changes within participants. There are several ways to lead these challenge initiatives. This paper presents a theoretical basis for why adaptive training may be the most effective facilitation technique for increasing adolescents' self-efficacy, self-affirmation, and performance. The nature of adaptive training creates an environment condusive for successful performance accomplishments. These successful accomplishments are one of the main ways in which self-efficacy and self-affirmation may be enhanced.

Author's Note:

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ADAPTIVE TRAINING'S AFFECT ON SELF-PERCEPTION

In increasing numbers, therapists in mental health agencies are using challenge initiatives to facilitate the acquisition of a variety of therapeutic changes in their clients. These initiatives may include activities associated with ropes courses, special games that are engineered to provide metaphors for life challenges, or other types of adventure related recreation (e.g., Gass, 1993; Nadler & Luckner, 1992; Rohnke, 1984; Tate, 1994). Among the most important changes that are assumed to result from participation in such activities are increases in self-efficacy, self-affirmation, and the sense of achievement associated with the successful performance of a motor skill.

Self-efficacy is defined as an individual's belief in his or her ability to perform a task required to produce an outcome (Bandura, 1977). Self-efficacy is important in mental health contexts because many clients tend to perceive themselves as incapable of experiencing success in any but the most simple of tasks (Seligman, 1975, 1990). Self-efficacy beliefs are specific to a behavior or set of behaviors in a certain context. Despite the task-specific nature of self-efficacy, it may be generalized to other behaviors or situations depending on the closeness of the relationships among the crucial features and skills (Bandura, 1986; Maddux, 1991). Thus, individuals with high self-efficacy in particular tasks will tend to have more confidence that they can achieve what they set out to accomplish in new domains of related behavior. Although it is assumed that individuals can increase their self-efficacy in many ways (Bandura, 1986), research has shown that successful performance experiences are the most powerful sources of self-efficacy (Bandura, 1977, 1986, 1995; Hackett, Betz, O'Halloran, & Romac, 1990).

In addition to self-efficacy, self-affirmation is another variable that is important in mental health settings. Self-affirmation is an ongoing process of self-definition, validation, enhancement, and maintenance of self-regard

(Haggard & Williams, 1991, 1992; Steele, 1975, 1988; Tate, 1996). In the course of daily life, individuals encounter a variety of threats to their self-regard. This is particularly true for recipients of mental health services, for whom these threats may become overwhelming. Situations that facilitate positive self-affirmations may help people to cope with these threats by facilitating a state of harmony within one's consciousness (Csikszentmihalyi & Csikszentmihalyi, 1988). People may also cope with a self-threat by affirming another personally meaningful and significant, but unrelated aspect of their lives (Steele, 1975, 1988; Steele & Lui, 1983). An individual who does not do well in school, for example, may believe that he or she is mentally deficient. However, this individual might maintain a sense of personal worth by taking pride in his or her role as a starter on the high school basketball team. This individual's success in basketball affirms the belief that he or she is a competent and worthy person.

A sense of achievement is also important to the treatment of clients in mental health facilities. This sense of achievement may result from successful learning of a motor skill. In mental health settings, two major challenges are faced by therapists who seek to use motor skills to initiate psychological change. One of these challenges is initiating participation and facilitating client engagement in the task. Lack of motivation to participate is characteristic of many patients in mental health facilities. The second challenge is that of encouraging clients to recognize and personally acknowledge their achievements. Many individuals in mental health facilities tend to deny personal credit for successes that they experience and point quickly to their personal inadequacies when they experience failure (e.g., Abramson, Seligman, & Teasdale, 1978; Morris & Ellis, 1993; Seligman, 1990).

One form of training that would lend itself particularly well to meeting these two challenges is adaptive training. In contrast to whole training, which focuses on practicing tasks in their total, completed form (e.g., full speed, full strength, full difficulty), and fixed training, which has a set inflexible progression for the trainee to follow, adaptive training is training in which the problem, the stimulus, or task is varied as a function of how well the trainee performs (Kelly, 1969; Mane, Adams, & Donchin, 1989; Tate 1996). An individual practicing under the full training technique interested in becoming a field goal kicker, for example, would immediately try to kick a 40 yard field goal before learning kicking fundamentals and before being able to successfully make a kick from 15 or 20 yards. If the same person wanted to practice under the fixed training condition, they would take a set number of attempts to make field goals from 10 yards, then 15 yards, then 20 yards, then 25 yards, etc. This progression would happen regardless of the trainee's success rate. Under an adaptive training framework, the field goal kicker mentioned above, would begin practicing at their given skill level and progress to further distances when they had mastered the present distance. These same principles can be applied to use with challenge initiatives.

Adaptive training would also seem to provide opportunities to address the challenge of motivating clients to participate because of its responsiveness to the abilities of the trainee (Kelly, 1969; Lintern & Roscoe, 1980; Patrick, 1992; Tate, 1996). Successful experiences in tasks that are calibrated to the ability levels of participants could be expected to increase self-efficacy, which in turn should promote motivation to participate (Bandura, 1977, 1986, 1989; Maddux & Lewis, 1995; Tate, 1996). Adaptive training would also seem to provide an advantage over whole training and fixed training in helping clients to recognize achievements that they have made. In contrast to whole training, adaptive training leads to multiple opportunities to experience small successes in the process of working toward accomplishing the larger, more complex task. These small successes provide clients with performance accomplishments that are essential to building self-efficacy (Bandura, 1977, 1986, 1995; Maddux, 1991, 1995; Tate & Ellis, in press) ,and they also provide therapists with a greater number of opportunities to reinforce achievements that clients have made. These successful performances may help to enhance clients' sense of confidence, pride,

competence, and satisfaction, all of which may be thought of as components of self-affirmation (Ellis, Voelkl, & Morris, 1994).

Background

Self-Efficacy, Performance and How They Are Related

Over the past few decades, several studies have been conducted to determine the relationship between self-efficacy and performance (for review, see Feltz, 1982; Gould, Weiss, & Weinberg, 1981; Tate, 1996; Woolfolk, Murphy, Gottesfeld, & Aitken, 1985). Successful performance accomplishments are the most powerful sources of self-efficacy (Bandura, 1977,1986), and research has shown that a high level of self-efficacy in a particular task is an excellent predictor of performance within that task (Bandura, 1986; Mahoney, Gabriel, & Perkins, 1987). The research on self-efficacy and performance has been shown to be bi-directional. Self-efficacy is an excellent predictor of performance, and successful performance accomplishments are the most powerful sources of self-efficacy. From this relationship, the conclusion that self-efficacy and performance have a cyclical relationship, can be drawn.

In early research involving self-efficacy and performance, Gould et al. (1981) examined the effect that self-efficacy had on wrestlers' match success. Fifty male collegiate wrestlers competing in the Big Ten Conference Wrestling championship were administered the Psychological Preparation in Wrestling Questionnaire the night before the tournament began. The results revealed that successful wrestlers had significantly more self-efficacy than unsuccessful wrestlers.

Using a simple motor task, putting a golf ball, Woolfolk et al. (1985) wanted to determine if self-efficacy was a good predictor of performance. The researchers asked male college undergraduate students how many putts they could make from six feet. The students were also asked how confident they were of their answer. The duel responses required in this study represent two dimensions of the putters' self-efficacy, strength and level (Bandura, 1977). The results of this study showed that self-efficacy and performance were significantly correlated.

Self-Affirmation

Steele's (1988) theory of self-affirmation addresses the process in which individuals affirm themselves when threats to their self-regard are encountered. Unlike similar concepts such as, self-efficacy and self-esteem, self-affirmation refers to the process in which individuals validate his or her worth (Schlenker, 1984; Steele, 1988; Tate, 1996). Situations that facilitate positive self-affirmations can help people to cope with threats to their self-regard by facilitating a sense of harmony within one's consciousness (Csikszentmihalyi & Csikszentmihalyi, 1988). One way in which people cope with self-threats is by affirming another personally meaningful, but unrelated aspect of their lives (Steele, 1988)

Steele (1975), conducted a study of name calling on compliance. The results of this study showed that individuals exposed to negative name-calling conditions (both relevant and irrelevant) had a significantly higher willingness to cooperate in future community activities than either those who were called positive names or no name. This study follows the framework of the self-affirmation concept. Individuals with threats to their self-regard (i.e., name-calling), want to affirm their goodness and worth (i.e., agreeing to participate in community projects). Individuals want to affirm their goodness and worth with either a related or unrelated, but significant action (Steele, 1975, 1988; Steele & Lui, 1983).

Haggard and Williams (1991, 1992) performed research on identity affirmation through leisure activities. Self-affirmation is characterized by these authors as an ongoing process of continual self-definition, validation, maintenance, and enhancement of the self. These researchers suggested that everything one does is a part of the self-affirmation process. One potent area in the self-affirmation process may be leisure activities (Haggard & Williams, 1991, 1992; Kelly, 1987).

Ellis et al. (1994) performed a study to explain the variance in studies of the flow phenomenon. Self-affirmation was used as one of their variables, because Csikszentmihalyi and Csikszentmihalyi (1988) suggested that flow occurs when the contents of consciousness are in harmony with the goals that define one's self. Self-affirmation was measured in this study by the extent to which each sampled experience was self-affirming to each individual.

Adaptive Training

Adaptive training may be useful in mental health facilities because it helps to motivate clients to participate in activities. The motivation to participate may be facilitated by adaptive training's ability to be responsive to the abilities of each individual client. Adaptive training also helps to facilitate motivation by its tendency to create successful performance accomplishments (Bandura, 1986).

In 1969 *Human Factors* dedicated most of an issue to the application of adaptive training. The most influential and most heavily cited article in adaptive training came from this issue (Kelly, 1969). Kelly defined adaptive training as a training method in which "the problem, the stimulus, or the task is varied as a function of how well the trainee performs" (p. 547). He suggested that learning can only take place when the difficulty of the task is at an appropriate difficulty level. When a task is too easy, a student learns little, and when a task is too hard, a trainee may become discouraged with the task all together. The nature of adaptive training helps in maintaining an optimal level of difficulty.

An advantage of adaptive training is that it keeps measured performance attempts constant (Kelly, 1969; Tate & Ellis, in press). This is done by the training system controlling the difficulty of the task. The constant performance level facilitated by adaptive training could increase participation in the activity. This is because the participant sees him or herself continually succeeding when he or she is improving at the task. Successful performance accomplishments, similar to the ones created by adaptive training, can increase an individual's motivation to participate (Bandura, 1986).

During the mid to late seventies, Williges, Williges, and associates published several research articles on the usefulness of adaptive training with laboratory tracking tasks. Batram (1988) tested adaptive training's utility in a field study for the United States Postal Service. Newly hired desk operators learning how to code foreign destinations of mail needed to be able to encode foreign destination mail in a set amount of time per parcel. The mail passed by the operators on a conveyor belt. The speed of the conveyor belt was adapted in such a manner as to promote the operators' error level to be maintained at less than 1%. The speed of the conveyor was increased when the error percent and coding time per item were in the desired range. These speed fluctuations, being dependent upon the operators' performance level, is an example of adaptive training. The results revealed that 85% of the participants were able to obtain the performance criterion set by the Postal Service.

A recent study conducted by Tate (1996) was the first to apply the theory of adaptive training to the facilitation of challenge initiatives. He compared the effects of three facilitation techniques on adolescent's in mental health facilities self-efficacy, self-affirmation, and performance. The three

facilitation techniques tested were as follows: Adaptive training, whole training (practicing a task in its entirety with each trial), and fixed training (practicing in a set progression giving a set number of practice attempts at each interval). The results of this study revealed that adaptive training was significantly more effective than whole training at enhancing both self-efficacy and self-affirmation in its participants. The adaptive group was also greater than the fixed group for all variables tested. Although the difference was not found to be significant between the adaptive and fixed groups, the author suggested that this could be attributed to the low sample size. The author suggests, that with a larger sample, a significant difference would have been found between the adaptive and fixed groups for both self-efficacy and self-affirmation.

Adaptive Training's Relationship with the other Variables

Performance. Learning is maximized when the difficulty of a task is at an appropriate difficulty level with a student's skill level (Kelly, 1969). When a task is too easy, a student learns little, and when a task is too hard, the student may become discouraged with the task all together. The nature of adaptive training helps maintain an optimal level of difficulty. This optimal difficulty level will help to create successful performances which should increase the students' self-efficacy. Research has shown self-efficacy as an excellent predictor of performance (Gould et al. 1981; Woolfolk et al. 1985). With an increased self-efficacy, the individual should have continual increased performance scores.

Self-Efficacy. The most powerful way to enhance self-efficacy is through repeated successful performance accomplishments (Bandura, 1977, 1986, 1995). Repeated failure at a particular task is the easiest way to deteriorate an individual's self-efficacy. Adaptive training helps to facilitate successful performance accomplishments by maintaining the difficulty level of the task with the skill level of the trainee.

Self-Affirmation. Steele (1988), stated that an individual may cope with a threat to their self-regard by affirming another unrelated but personally meaningful aspect of their life. Depressed individuals in mental health facilities often have a low self-regard and need to find someway to affirm their goodness as a person. Adaptive training facilitates repeated successful performance accomplishments. The successful experiences that the individuals have may facilitate feelings of confidence, pride, satisfaction, and competence which are all part of self-affirmation (Ellis et al. 1994).

Conclusion

Individuals facilitate challenge initiatives in many different ways. With the abundance of existing methods used to lead challenge initiatives, determining the most effective method can often be confusing. According to current counseling theory, an intervention must be structured so that it correlates with a client's readiness for treatment (Corey, 1991). Simply stated, therapists must begin treatment where the client is at. Adaptive training is based on this philosophy. It is structured in a way as to maintain the optimal state of readiness within its clients. Whole training and fixed training, in contrast, have the potential to progress too quickly, moving outside the client's readiness level. Therefore, adaptive training may be the most effective method for enhancing self-efficacy and self-affirmation among adolescents in mental health facilities.

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Outdoor Program Staff Exchange (OPSE)

By

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Abstract: The effective transfer of knowledge pertaining to the functioning of various college or university outdoor programs is limited by factors such as distance, time, and lack of personal contact. In an attempt to overcome these barriers to sharing information, a short-term physical exchange of personnel would give individuals a chance to experience first hand the operations of another outdoor program. In doing so, a more detailed and intensive transfer of information could occur than would be possible via conventional means such as lectures, conferences, and printed materials.

Proposal: An outdoor program staff exchange (OPSE) between participating colleges or universities for the purpose of improving effectiveness in providing a quality outdoor program and service to their respective student, academic, and local communities.

Background: Following the ideals of the 1984 National Conference on Outdoor Recreation (NCOR), that of networking, sharing information, and attempting to improve outdoor programs, the OPSE proposal is an attempt to bring about these results in an intensive, direct manner through personal experience and participation with similar outdoor programs. Similar outdoor programs can be vastly different depending on each programs particular needs, styles of organization, resource availability, mission, fiscal restraints, etcetera. Attempting to pursue goals such as those that the original NCOR participants proposed is often only partially successful due to lack of time and understanding in sharing ideas. Actual participation in another outdoor programs day to day operations and activities would provide the needed time and ability to absorb information on a personal basis. To date no such physical exchange of outdoor program staff exists.

Objectives: The primary objective of the OPSE would be for participants to share in daily field and office operations, gather information, evaluate effectiveness of program similarities and differences, and share ideas and observations based on their own personal or professional experience. Specific components within an outdoor program in which mutual help, ideas, and information could be exchanged might include:

- Equipment: EVALUATION - of what is popular, functional, safe, affordable.... PURCHASING - quantities, wholesalers, availability.... MAINTENANCE - repair tricks, tools, materials.... TESTING - function, durability, innovation.... RENTAL & RESERVATION - systems, efficiency, pricing....
- Program: PLANNED ACTIVITIES - successes and failures.... WORK SPACE - orientation and utilization of space, prioritizing needs, atmosphere....STUDENT & FACULTY SERVICES - hours of operation, repair and maintenance, education.... COMMUNITY INTERACTION - exposure on and off campus, volunteer work... SUPPORT SERVICES - locating, understanding, and using area resource materials such as maps, guide books, specialty retailers.... PHYSICAL RESOURCE INVENTORY - collection of area Federal, State, and County outdoor resource information.... DEMOGRAPHICS - user age, sex, abilities.... SAFETY - field emergencies, staff/student medical training, search & rescue, program S.O.P., hazard awareness....
- Soft Skills: PROFESSIONAL DEVELOPMENT - what training is available, effective, affordable and necessary, inter-office or departmental communications.... LEADERSHIP STYLES - what does and does not work in particular style, conflict resolution, communicating the outdoor experience, participant awareness.... MANAGEMENT - sharing work loads, communications, motivation and training of staff or student help....

Implementation: Proposed scenarios of the OPSE which would deal with the actual exchange might involve same time, or same semester exchanges of outdoor program Directors or Assistant Directors. One-way exchanges may be possible given a shorter time frame of possibly one to two weeks. Ideally, participants would be of equal standing in any exchange and would be expected to perform at a similar level in their respective exchange programs. Participants would continue to receive their normal salary from their home institution, and would be responsible for their own meals and transportation. Help and assistance in locating suitable lodging for exchange participants during their chosen period of stay would need

to come from the hosting institution. Either a direct swap of living residences, or college provided housing would be preferable.

Program Development: An OPSE "Participation and Interest" form would be available to any interested person upon contacting Tim Thomas at the Fort Lewis College Outdoor Pursuits office in Durango, CO.. The original pool of interested parties would come from this ICORE conference. From this pool, a master list would be compiled. The master list would be published biannually corresponding to the start of the fall and spring school terms, and would be distributed to all participating OPSE parties. The master list would be compiled and updated by myself for the period of two years from the date of inception, and henceforth be turned over to either ICORE staff or another willing outdoor program representative, depending upon the level of continued success or interest. When an individual finds a college or university that interests them on the master list, they can contact me to receive that institutions "participation and interest" form. Willing or interested OPSE persons could exchange names, program information, available dates etc. over the phone, by fax, or via e-mail. At this point both parties would be responsible for arranging their own schedules and assorted details of the exchange.

Benefits: As stated in the "Background" section of the proposal, the primary benefits of the OPSE would be a direct, interactive, participatory approach in sharing information, ideas, and skills used in different outdoor programs around the country. Such an exchange would benefit not only the individual participants, but ultimately the program and all of its users. Another potential benefit may be the ability to eventually provide sabbatical time off for staff wishing to pursue interests requiring extended leave from their program position. Utilizing the OPSE system might provide this opportunity without the risk of losing ones position, possibly by utilizing an individual already familiar with ones program from a previous OPSE experience.

Conclusion: I propose the OPSE be initiated in the spring of 1997 given an initial positive level of interest and participation at the current ICORE conference. All parties filling out the "Participation and Interest" form at the ICORE conference will constitute the original master list for 1997, and will have a copy of said list sent to them. The master list will be updated in the fall of 1997.

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SAMPLE: **Participation & Interest Form - OPSE**

*Note: All information other than name & contact numbers will be confidential unless authorized for release.

NAME/ TITLE: _____
DEPT. & SCHOOL: _____
ADDRESS: _____
PHONE/FAX: _____
E-MAIL ADDRESS: _____
WWW ADDRESS: _____

Please provide a brief description of your outdoor recreation program including services, equipment and trips provided:

_____
_____
_____
_____
_____

Size of college/univ.: _____
#'s active in program: _____
# of paid employees: _____

Name of exchangee(s): _____
Job description/duties: _____
Age, sex, health: (optional)_____
Areas of expertise: _____
Duration of exch.: (min./max.)_____
Dates avail. for exch.: _____
Housing assistance: (yes/no)_____
Housing requirements: _____
Personal goals for OPSE: _____
_____
School/area that you'd like to visit: _____

*I authorize release of the above information except ( )
for the purposes of establishing contact with other OPSE participants.
Y__ N__ Fax or mail me info. from other compatible OPSE participants

THE ART OF TEACHING MAP AND COMPASS: INSTRUCTIONAL TECHNIQUES, CURRICULAR FORMATS AND PRACTICAL FIELD EXERCISES

By

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ABSTRACT

The value of teaching map and compass in a classroom or an outdoor situation is often overlooked. A common impression held by many is that it is dry and unappealing. But, in reality, when taught correctly using a combination of exercises indoors and outdoors, map and compass can be one of the most enjoyable of all outdoor activities, generating excitement and enthusiasm even among the most reserved students. Moreover, the importance of navigation knowledge can't be overlooked. It is the most basic of all outdoor skills and has applications which carry over to every day life. A map and compass curriculum is easy to incorporate into any school or outdoor programming situation, requiring a minimum of equipment. This paper discusses general teaching principles, including some ideas on how to deal with one of the most vexing problem areas for teachers: declination. Two teaching scenarios are suggested including a two hour indoor/outdoor session and a weekend map and compass workshop. The paper concludes with an annotated list of map and compass references.

INTRODUCTION

Map and compass is one of those areas of outdoor education that we tend to overlook. At first glance, it isn't as sexy as rock climbing or as in vogue as rope course or team building activities. It seems, well, to put it mildly, that map work is rather dry stuff. It's this unappealing image of map and compass which makes it something easily forgotten or glossed over. At second glance, however, there is much more to the subject than meets the eye.

First and foremost, map and compass is the most basic of all outdoor skills. No matter what a person does in the outdoors--hike, cross-country ski, hunt, canoe, or sail--he or she will need to know something about maps and compasses. Moreover, the knowledge of rudimentary wayfinding techniques is important and useful in day to day living. We need map skills to decipher bus route maps of big cities as much as we need them to understand a topographic map of a favorite park. We rely on wayfinding principles to give us a sense of direction while walking through a downtown area as much as we rely on them to find our way around a wildlife preserve on cross-country skis.

One of the nicest things about teaching map and compass is that it is truly the great equalizer, whether it is taught in a classroom or in an outdoor setting. It plays no favorites. It's for everyone: children or adults, men or women. It is a type of activity which transcends gender and ethnic boundaries. It can even be taught in the early grades when children first start going to school. The idea that only older children should be exposed to map and compass instruction is passé. Recent research (Blades & Spencer, 1989) indicates that very young children can learn and benefit from basic wayfinding skills.

For school situations, map and compass instruction is a perfect activity for combining classroom work with experiential exercises in the outdoors. A teacher can start with an hour of instruction indoors, talking about a few fundamentals of maps and compasses and then move outside to allow students the opportunity to apply those concepts through orienteering games. When outdoors, teachers will notice a change come over students: they become excited and enthusiastic about what they are doing. I've seen this happen in college classes. Take a bunch of bored Physical Education students. Get them through an hour's worth of introductory material, and then lead them outside for one or two compass exercises. Suddenly, everyone is chattering and excited about what they are doing.

This is all possible at minimum expense. Unlike many outdoor activities, map and compass is one in which the basic tools are relatively inexpensive. For younger children, a simple map of the school yard (costing nothing) is all that is necessary. Older children and adults will need topographic maps ($3 to $4 dollars each), but since topographic maps are made by the U.S. Geological Survey, an agency of the federal government, they are in the public domain and may be photocopied as many times as needed without worrying about copyright infringement. The most expensive part of teaching map and compass instruction is compasses. Compasses, however, aren't needed for young children. For all others, the expense is low. The finest compasses for outdoor use only cost around $45, but perfectly adequate compasses can be found for around $15.

With its low cost, high value and ease to incorporate in a variety of educational situations, map and compass should be a part of any outdoor activity program. The following are some teaching suggestions, hints and curriculum ideas. It assumes that you are already familiar with map basics, but if you need to brush up on navigation concepts, a list of source materials has been included at the end of this paper.

GENERAL TEACHING PRINCIPLES

1. When teaching map and compass, start with the basic idea of what a map is. Often, teachers will use the metaphor that a map is a representation of what one sees from an airplane, or "a view from above." This a suitable metaphor for the secondary grades and above, but for younger age groups, research by T. Ottosson (1988) indicates that the top down metaphor may be confusing. Instead, Ottosson found that referring to a map as "miniature world" provides a better basis for instruction. Young children already possess knowledge of the immediate world around them (the layout of the school and school yard and their neighborhood) and that understanding should be utilized as the starting point for map teaching.

2. For younger age groups, introduce the idea of directions and the purpose of a compass, but avoid getting into much detail about compasses. Compass bearings, the difference between magnetic north and true north are confusing, and it is best to concentrate on maps and how one can find their way using a map. Even at an advanced level, most orienteering is done without a compass, and navigation is accomplished primarily from map reading.

3. Use a combination of indoor and outdoor settings for teaching. Begin in the classroom with basic concepts and then move to the outdoors to actually use what students have learned. For an example, in my indoor session I introduce directions, compasses and how to set a bearing. I have the students set different bearings on their compass while still in the classroom. When everyone is comfortable with bearings, I move the class outdoors and have everyone participate in a three-leg compass walk (Kjellstrom, 1994).

> Three-leg Compass Walk. Of all map and compass exercises, the three-leg compass walk is one of the best--and it can be done with nearly any age group. Start by having each student mark their location with a pencil or a small stick and setting their compasses to north (360 degrees). Once north has been set, they sight down the direction of travel arrow on the compass and pick out a landmark in the background. The landmark can be a tree, baseball backstop, a telephone pole, etc. The students then step out 100 paces. (These are double step paces. In other words, students should count each time their right foot touches the ground.) Everyone stops after 100 paces. The students are then directed to set their compasses to 120 degrees and they pace out another 100 steps and stop. Then everyone is directed to set their compasses to 240 degrees and pace out another 100 steps. At this point, they have completed walking a triangle and should end up fairly close to their starting point. The exercise quickly becomes a game among students to see how close they can come to their starting point.

4. Progressive teaching. Begin with the basics and build upon them. This is particularly important when students are ready to go onto an orienteering course. Orienteering courses are simple to make. It's just a matter of tying orange surveyor's ribbon to trees or bushes at 7 or 8 locations and marking each location on a map. Using the map, students need to find each marked location (called a control point) and write down the number on the ribbon. For younger children, you might want to consider placing a surprise at one more of the control points: a piece of candy or a cracker jack toy. Always start out with a very basic course. Use easy to find locations to attach your control points: the corners of buildings, a basketball post, the intersection of two trails, a hill top, etc. No matter what the age group, on the first course, students should not have to use the compass to find the points. Wait until your students have done one or more courses before including any control points which require the use of a compass. Start slow and let success build upon success.

5. Use the utmost care when teaching about declination. In twenty years of teaching map and compass, I have found that of all map concepts, declination, the difference between magnetic north and true north, is the most difficult to teach. For younger groups, avoid the concept altogether. For older ages, at some point, you'll need to deal with declination since bearings taken in the field must be adjusted so that they can be applied to the map, and, conversely, map bearings need to be adjusted so they can be used in the field. In the past--and many teachers still teach this way--declination was accounted for by using an addition-subtraction method. Whether to add or subtract depends on whether you live in an area with an east or west declination. Various memory techniques have been employed, including the commonly used rhyme: "East is least" (subtract declination from a compass bearing) and "West is best" (add the declination to compass bearings). This is true if you are converting from a compass bearing to the map, but if you are working from the map to a compass, you need to do just the opposite.

The confusion that can result from trying to remember when to add or subtract can literally bring a map and compass class to a halt. I've seen well educated individuals in map classes who have become so completely frustrated using the addition-subtraction method that they've been driven nearly to tears. A young woman--who later became my wife--was one of those, and she was one very good reason why I changed my method of teaching.

The secret to avoiding these problems is to work in one system: either based all bearings on magnetic north or base them all on true north. There are three ways of accomplishing this:

A. Map Marking. In this method, all bearings are based on magnetic north. While the compass bearing may be used directly, an adjustment needs to be made to the bearing obtained from the map. To do so, determine the map's declination which is printed at the bottom of topographical maps. Using a protractor, draw a series of slanted lines across the map at the declination angle. Normally, when a map bearing is taken the orienteering arrow of the compass is aligned with the sides of the map, but in this method, the orienteering arrow is aligned with the newly drawn magnetic lines. The bearing taken from the map is now based on magnetic north and can be used directly in the field. No adding or subtracting is needed.

While this method is suggested by a number of map and compass authorities (Kjellstrom), I advise against it. It means taking time to draw lines on the map--and it's a painstaking process to make sure the lines are drawn at the correct angle. Most people who participate in outdoor activities eventually end up with quite an assortment of maps, and if they use this method, it means they will have to draw lines on all of their maps. Moreover, often maps are purchased on the way to an outing, and few people will take the time to draw magnetic lines while on the road.

B. Compass Marking. In this method, all bearings are based on true north. Since maps are oriented to true north, it is the compass that needs to be altered. To make the alteration, set the compass at 0 degrees. Take an oil-based Magic Marker and place a mark at the declination angle on top of the plastic capsule which houses the compass needle (Ratliff, 1964). For example, if your declination is 10 degrees west, place a mark at 350 degrees (360 degrees minus 10 degrees). The usual procedure to take bearings in the field is to line up the compass needle with the orienteering arrow, but in this method the compass needle is lined up with the mark. This has the effect of making all compass bearings based on true north. Compass bearings may applied directly to the map, and map bearings may be used directly in the field. There is no subtracting or adding--or drawing lines on the map. Since the mark is in indelible ink, it can't be rubbed or washed off. It can, however, be removed with rubbing alcohol, or white gas (commonly carried on camping or backpacking trips) in the event that the user goes out of state to an area with a different declination.

C. Adjustable Compass. The last method is the easiest. If you have a say in the type of compasses which are purchased for your classes, buy compasses in which declination can be set. All you do is to turn the declination adjustment screw on the compass and all readings are automatically converted to true north. There's no further bother. This method and the second method are what I use in my classes, and I found that it has saved myself and students hours of frustration.

TEACHING SCENARIOS

Two-hour Course.

I use a two-hour course format for map and compass presentations to school children and scout groups. One hour of the class is spent indoors and the other hour is spent outdoors. Begin the class by passing out maps and discussing what a map is (using the "top-down" metaphor--or for young children, use the "miniature world." Discuss map

symbols (roads, trails, buildings, lakes, rivers, etc.). Then bring up the idea of directions: the top of the map is north, bottom is south, etc. The compass comes out next. Show how compasses indicate north, south, east and west. Finally, explain how to set a bearing on the compass and how students follow bearings in the field. Practice setting a few bearings indoors.

Next move outdoors and do the three-leg compass walk described previously. Two hours isn't much, but it is enough time to give your students an introduction to maps and compasses and pique their interest. After doing the compass walk, you'll find they'll be excited to try more. If you are able to fit another session into the schedule, you'll be able to go into more detail about maps, but always combine an indoor session with an outdoor session. There are other exercises similar to the three-leg compass walk which can be found in the books in the reference list accompanying this paper.

Two-hour Course Curriculum Summary:

Indoor Session:
- Hand out and introduce maps
- Map symbols: roads, trails, buildings, rivers, lakes, etc.
- Directions: north, south, east, west
- Compasses: how to find north, south, etc.
- How to set a compass bearing.

Outdoor Exercise:
- Three-leg compass walk

Two-day Course

Two days is an ideal length of time for teaching the basics of map and compass to older and college age groups. I utilize the two day format for my university and community classes, and it's just the right time allotment for them to become comfortable enough with their own skills for outdoor use.

The first morning of the course is all indoors. I prefer a carpeted room, so that participants in the class can spread out maps and work off the floor. This informal feeling to the class helps to establish a "fun" atmosphere to get things started on the right foot. Several different map scales (USGS map scales: 7.5 minute, 15 minute, and 1- by 2-degree maps) are passed out so that students can get an idea of the relative areas covered by different scales. From this point on, I work solely with US Geological Survey 7.5 minute maps. This is the most common type of map utilized for outdoor recreation purposes, and it makes sense to spend most of the course time on something students will be using.

The goal of the morning session is to try to summarize all the information that is found on a 7.5 minute map. Several different methods may be employed, but my approach is to have them view their map from a global perspective. This leads into a discussion of latitude and longitude and why their map is called a 7.5 minute map.

Since latitude and longitude coordinates can get complex, I try not to spend too much time on them and move into the UTM (Universal Transverse Mercator) system which is a far easier for describing points on maps. Covering this material is particularly useful in a college setting since UTM's are widely used in scientific research as well as rescue and military work. Each year, I have graduate students in biology who,

among other reasons, take the class for the purpose of identifying research locations using the UTM system. From UTM's, I cover the Township-Range system and briefly point out any other coordinate system that may be on the map.

Map symbols and contour lines are left for late morning just before the lunch break. It helps to have at least one if not two visual aids when discussing contour lines: overheads of drawings of land features (hill, stream drainage, ridge, saddle) and their representations in contour lines, and if one is available, a model which can be taken apart to help students visualize contour lines.

After lunch, the compasses come out and the discussion leads into directions and declination: how declination is set on the compass, and how to compensate for it if a person doesn't own a compass with a declination feature.

Moving outside, the class walks up to the top of a hill (the roof of a building will work). Everyone orients their maps and tries to identify land features and landmarks around them. When they become comfortable with the surrounding terrain, maps are passed out on which the first orienteering course has been marked. Before students begin the course, however, we discuss each of the control points and how they can be found. This discussion is key. An orienteering course is a new concept to students, and they need time to digest it and guidance to get started. The first course is very easy, doesn't require a compass, and is designed to begin the process of building wayfinding confidence.

When they return, we go back indoors and begin a discussion of bearings. It's important in this discussion to distinguish between map-to-field and field-to-map bearings, taking time to explain how each is done. The day ends with each student determining their pacing (double pacing) over a 100 foot distance and doing a three-leg compass walk.

On the morning of the second day, all the material from the previous day is reviewed with particular emphasis placed on determining map and field bearings. The second orienteering map is handed out and time is spent discussing the course and talking about where each point is located. The course has one control point which requires students to use their compasses, and before going out, I have everyone calculate the bearing from their maps and write it down.

After the second course, bearings are reviewed again, and resection, the process of finding one's location from two distant landmarks, is covered. The class, then, moves to the location of the last and longest of the three orienteering courses. Since this is a college course, I'm there to greet them at the end with a big smile and--a test, of course.

Two-day Course Curriculum Summary:

Day One, Indoor Session
- Type of maps, map scales
- Source of maps, USGS topographic maps
- Names of maps
- Latitude, longitude
- UTM coordinate system
- Township, range
- Sections, section corners, legal descriptions
- Map symbols & colors
- Contour lines--contour line identification: hills, gentle terrain, rugged terrain, stream drainages, ridge lines, saddles

Directions & compass
Declination, setting declination or compensating for it
Orienting a map

Day One, Outdoor Field Session:
Move to hilltop or top of building: using map symbols and contour line identify surrounding features.
Day One, Orienteering Course:
Orienteering Course #1: Go through each of the control points and have students follow the course on their own.
Day One, Indoor Session: Map bearings and field bearing
Day One, Outdoor Session: Pacing and three-leg compass walk (to practice pacing and bearings)

Day Two, Indoor Session:
Review of previous day's material, review field to map and map to field bearing. Hand out the second course map and discuss each point.

Day Two, Orienteering Course:
Orienteering Course #2: No more than one point should require the use of a compass.

Day Two, Indoor Session:
Review bearings
Resection
Hand out the third course map and review all points.

Day Two, Orienteering Course
Orienteering Course #3: Two or three control points may require the use of compass bearings.

MAP AND COMPASS SOURCE MATERIALS

A reliable source for many of the books and videos listed below is AlpenBooks, a national outdoor book distributor, phone: 1-800-290-9898.

Books:

Maps for America, Reston, VA: US Geological Survey, 1982. A reference book for college level courses. It has useful templates for UTM coordinates, lots of charts and illustrations of the parts of Geological Survey maps.

Kals, W.S., Land Navigation Handbook. San Francisco: Sierra Club Books, 1983. This well written book covers all aspects of maps and compasses. It gets my top rating as the best overall text for map and compass at the college level.

Kjellstom, Bjorn. Be Expert with Map and Compass (rev. ed.). New York: Macmillan, 1994. Still in print, this is the standard map and compass text. It is particularly useful for school aged children and includes a number of games and exercises.

Singleton, Robert. You'll Never Get Lost Again. New York: Winchester Press, 1979. Includes basic map information, but also takes a different approach, concentrating on finding oneself if lost.

Taylor, Barbara. Be Your Own Map Expert. New York: Sterling Publishing, 1994. This profusely illustrated and colorful book is a good one for children. Includes games and projects.

Videos and Materials Available on the INTERNET:

"Finding Your Way in the Wild." Richard Diercks Company, 1990. While this 35 minute video will not win any artistic awards, it does cover the basics well and is a good supplement to classroom work.

"Finding Your Way with Map and Compass." This brief introduction to using maps and compasses is an on-line version of a booklet that the U.S. Geological Survey publishes. Includes text and graphics. Address: http://info.er.usgs.gov/fact-sheets/

"Orienteering and Rogain Home Page." A very brief description of orienteering and the sport of rogaining which are long, 24 hour, orienteering races in teams. Includes links to clubs and other resources. Address:
http://www2.aos.princeton.edu/rdslater/orienteering/

Perry-Castaneda Library Map Collection. A comprehensive map holding at the University of Texas, Austin library. A number of maps are downloadable. Address:
http://www.lib.utexas/Libs/PCL/Map_Collection/Map_Collection.html

"US Geological Survey Home Page." The main U.S. government agency in charge of mapping and map services. Address: http://www.usgs.gov

"Abstracts of the Scientific Journal of Orienteering." A research oriented journal covering aspects of the sport of orienteering. Address: http;//www.ped.ju.se/scijol

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Ottosson, T (1988). What does it take to read a map? Scientific Journal of Orienteering, 4, 97-106.

Blades, M. & Spencer, C. (1989). Children's wayfinding and map using abilities. Scientific Journal of Orienteering, 5, 48-60.

Kjellstrom, B. (1994). Be Expert With Map and Compass (rev. ed.). New York: Macmillan.

Ratliff, D. (1964). Map, Compass and Campfire. Portland: Binfords and Mort. (Ratliff's book is the first in which mention is made of the simple but elegant method of compensating for declination by making a mark on the compass.)

UNIVERSITY OUTDOORS PROGRAMS: STATE OF THE ART 1996

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ABSTRACT

Extracurricular outdoor programs sponsored by colleges and universities continually change and evolve. Demographical, financial, and programmatic data presented in 1990 will be compared with data made available in 1996. Comparing recent data on outdoor programs with prior data can indicate trends, suggest standards of performance, and provide ideas for program development. Ranking and sorting college and university outdoor programs several ways demographically, financially, and programmatically can provide an overview of this industry generally and specific program comparison individually. Knowing where we have been and where we are now can provide a framework of choosing where we could go in the future.

INTRODUCTION

This presentation will present the findings of an international survey of college and university programs made available in 1996, as well as compare it with findings of a survey presented 6 years ago at the 4th National Conference of Outdoor Recreation, Appalachian State University, Boone, North Carolina. The survey findings and comparisons indicate: who sponsors outdoor programs; what program delivery systems are being used; in what schools are rentals, retail, repairs, and trips provided; what types of trips are provided; other facts and figures. Comparisons show what changes have taken place and may indicate trends. Examining these findings can help outdoor program professionals better understand who they are, what they do, how they serve, how they compare with others and future directions. This information can motivate and illustrate by providing examples of existing other programs.

Outdoor Recreation Programs: Philosophy, Theory, and Models

Some outdoor programmers are like Christopher Columbus: he didn't know where he came from, didn't know where he was, didn't know where he was going, and was doing it on an institution's money. He suffered from

a lack of accurate knowledge resulting in mismanaged controls (at least if he was going to reach his goal of sailing to China).

In the directory from which this information was summarized, you will find demographic, financial, and programmatic information that can help you better understand outdoor programs. Names, addresses and phone numbers are also available so that direct contact can be made with professionals at a variety of programs, associations, and organizations.

Program Services, Models, Benefits, and Goals

Before we focus on data comparisons, a definition of outdoor programs, and a review of program services, models, benefits and goals can be helpful.

The *outdoor programs of this study* are usually not degree-granting programs. They are typically extracurricular in nature. They provide services in the form of equipment rental, equipment repairs, retail sales, and outdoor adventure speakers, events, clinics, activities, and trips. These programs are typically sponsored and housed in intramural, union/ student affairs, recreation, and physical education departments. Experiential in nature, these programs, services, and instruction occur within a wide variety of extra-curricular experiences. These experiences are aimed at enhancing curricular education and assisting in the balanced development of the total person, especially in the areas of leisure and moral growth.

Program services are usually one or more of the following: equipment rental, equipment repair (usually bike and ski), retail sales of equipment, outdoor programs, events, and activities. These services may have a cost or may be free. They may be available only for students, or they may also be available for university employees and the general public. The financial goal may be one of generating income to supplement the budget supporting the program, to generate income to cover all costs, or to generate income and realize a net income to be used to offset inflation and to provide for program development and growth. Table 2 lists these four services, and the typical service provided in several activities. Some universities providing these services for the listed activities are also indicated.

Organizational Models used for service delivery would be the following: Common Adventure, Club, SST (Structure/Safety/Training), PE (Physical education/credited) and Guided (contracted).

'Common adventure' programs have no institutional direction and very little support. Institutions provide planning resources, meeting areas, and 'trip boards' where individuals plan and announce trips. If the institution provides leadership, training, group equipment, transportation, or other similar supports, the activity is not common adventure, but becomes a 'Structure/Safety/Training' style trip. Common adventure trips are trips untouched by organizations and institutions and are completely trip participant operated and supported.

'Club' organized adventure programs operate according to a club charter with club members making the decisions. The amount of institutional support and direction varies with some clubs receiving significant institutional support and guidance and other clubs receiving no support.

'Structure/Safety/Training' modeled outdoor programs are supported and directed by a institution. The support and direction may be

significant or minimal. Some organizational structure and support guided by an institutional employee, provides a framework for operation. This structure may have a high or low degree of control by the program participants. Some safety factors are instituted in the program. Training of some type is provided through the program. A 'cooperative adventure' trip where participants are making many decisions, but where the institution has provided or made arrangements for any training, leadership, safety guidelines, transportation, lodging, food or similar services, would be a 'Structure/Safety/ Training' model style trip. The same trip, but where the trip leaders make most of the decisions would also be a 'Structure/Safety/ Training' model style trip.

'*Physical education/curricular and Guided (contracted)*' adventure programming usually places total control of organization, service, safety, and training within a controlled and comparatively inflexible setting. Participants conform to the program provided.

Outdoor programs are beneficial to those who participate in them, regardless of the program model under which they participate. There is not one "best" model, each has strengths and weaknesses. Becoming knowledgeable regarding these models will help you minimize the weakness of the model you use, and help you maximize its strengths. Table 1 is a comparison of these four models.

Table 1

Comparison of Four Different Models of Outdoor Recreation Programming

ASPECT OF MODEL		COMMON ADVENTURE	CLUB	SST	PE
Primary source of funding		Individual participant	Club support & individual participant	Sponsoring organization, individual participant	School/College
Nature of funding		Shared trip costs	Dues and shared trip costs	Sponsoring organization funds and shared trip costs	School funds and shared trip costs
Philosophical foundations		Individual freedom; personal growth through interpersonal interaction; enjoyment of outdoor recreation; enhancement of outdoor skills	Teaching/learning of outdoor skills; competition; enjoyment of outdoor environment	Enhancement of outdoor skills; enjoyment of outdoor environment; safety; enhanced self-confidence/ concept	Teaching or learning of outdoor skills
Administrative support	Type	"Standard" (trip bulletin board, meeting facilities, equipment source, advertising source, printing source; audiovisual equipment, etc.)	"Standard"	"Standard"	Teaching facilities; equipment
	Source	Student Center/Union	College; Student Union	Sponsoring organization	PE Department
Organization		Centers on *facilities* that make outdoor recreation actually happen (bulletin board, meeting rooms, audiovisual equipment, printing facilities, equipment rental, ect.)	Specified in club constitution; officers with specific duties	Student committee as specified in a charter/ constitution & procedure documents	Teacher/student/ classroom
Source of instruction		Individual participants; commercial sources	Skilled individuals within group	Skilled individuals within group	Professional staff within school
Source of equipment		Individual participant; rented from commercial sources	Club; individual participant; or rented commercially	Sponsoring organization; or rented commercially	School; or rented commercially
Source of outings		Volunteered	Scheduled/decided by club	Scheduled/decided by student leadership	Scheduled by instruction
Leadership source		Volunteers from among participants	Club members elected/ appointed by membership	Developed within group by training & selection process	School/ college personnel
How safety standards maintained		Participant imposed	Club members decide standard, club leadership carries them out	Sponsoring organization and group leadership work up standards; student leadership carries them out	School/college sets standards and enforces them
Main advantages	For College	Low liability risk	Minimized supervisory & administrative time	Easy to give direction to programming	Expanded courses
	For Student	Maximum flexibility to meet individual needs	Easier access to a particular outdoor recreation; social	Safe	Course credit
Schools using these models in their outdoor programs *		Univ. of Oregon Western Washington Univ. Univ. of Idaho Idaho State Univ.	Dartmouth College Univ. of Wisconsin-Madison Cal. San Luis Obispo	Univ. of California-Berkley Oregon State Univ. Brigham Young Univ. Univ. of Calgary	Cornell Univ. Prescott College Colgate Univ.

* Added to original ORGT table by David J Webb, BYU Outdoors Unlimited, Brigham Young University (1990).
Source: Compiled by Wm. Miller Templeton, ORGT-Outdoor Recreation at Georgia Tech., Georgia Institute of Technology (1981)

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Table 2

A Listing of Four Program Services of Sixteen Recreational Activities found within the College Outdoor Program Setting

ACTIVITIES	SERVICES			
	RENTAL	REPAIR	RETAIL	PROGRAM
Backpacking Camping Picnicking	Most programs provide this service	Few programs provide this service	Few programs provide this service -some accessories	Most programs provide this service
Successful programs	Brigham Young U. U. of Cal-Irvine Miami U.		Brigham Young U. Cal. St.-Sacramento Ricks College	U. of Cal-Berkeley U. of Calgary Cornell U.
Canoeing Kayaking	Many programs provide this service	No	Some programs provide this service -used equipment	Many programs provide this service
Successful programs	U. of Cal-Berkeley U. of Wis-Madison U. of Washington		Western Wash. U. Brigham Young U.	San Diego Aquatics Cal. St.-Sacramento Miami U.
Rafting	Many programs provide this service	Few programs provide this service	Some programs provide this service -used equipment	Many programs provide this service
Successful programs	Brigham Young U. Idaho State U. U. of Utah	Brigham Young U.	Brigham Young U.	U. of Cal-Berkeley U. of Cal-Davis Humboldt State U.
Sailboarding Sailing	Some programs provide this service	No	Few programs provide this service -new/used equip.	Some programs provide this service
Successful programs	U. of Cal-Berkeley U. of Wis-Madison Cal. St.-Sacramento		Brigham Young U.	San Diego Aquatics U. of Cal-Berkeley Stanford Aquatics
Alpine Skiing	Few programs provide this service	Few programs provide this service	Some programs provide this service -new/used equip.	Some programs provide this service
Successful programs	U. of Cal-Berkeley Brigham Young U. San Diego State U.	Brigham Young U. San Diego State U. U. of Cal-Irvine	Brigham Young U. U. of Cal-Irvine Cal. St.-Sacramento	U. of Wis-Madison San Diego State U. U. of Cal-Berkeley
Nordic Skiing	Many programs provide this service	Few programs provide this service	Some programs provide this service -new/used equip.	Some programs provide this service
Successful programs	Brigham Young U. U. of Utah U. of Cal-Berkeley	Brigham Young U. Cal. St.-Sacramento Western Wash. U.	Brigham Young U. Cal. St.-Sacramento U. of Cal-Irvine	Cornell U U. of Wis-Madison U. of Calgary

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Table 2 (continued)

ACTIVITIES	SERVICES			
	RENTAL	REPAIR	RETAIL	PROGRAM
Rock-climbing	Many programs provide this service (usually *not* ropes)	No	Few programs provide this service	Many programs provide this service
Successful programs	U. of Col-Boulder U. of Calgary U. of Cal-Berkeley		Brigham Young U.	U. of Cal-Davis Cal. State-Chico North Carolina St.
Winter-climbing	Few programs provide this service	No	Few programs provide this service	Some programs provide this service
Successful programs	Western Wash. U. U. of Cal-Davis Col. St.-Ft. Collins		Cal. St.-Sacramento Brigham Young U.	U. of Washington Western Wash. U. Cornell U.
Biking	Some programs provide this service	Some programs provide this service	Few programs provide this service -new/used equip.	Many programs provide this service
Successful programs	Brigham Young U. Cal. St.-Sacramento	U. of Cal-Santa Barb. U. of Cal-Davis Western Wash. U.	Brigham Young U. U. of Cal-Irvine U. of Cal-Berkeley	Idaho State U. U.. of Cal-Davis Cornell U.
Equitation	Few programs provide this service	N/A	Few programs provide this service	Few programs provide this service
Successful programs	U. of Wis-Madison			U. of Wis-Madison U. of Cal-Pomona Ricks College
Hang-gliding	Few programs provide this service	Few programs provide this service	No	Few programs provide this service
Successful programs				U. of Wis-Madison
Scuba Diving	Few programs provide this service	Few programs provide this service	Few programs provide this service	Few programs provide this service
Successful programs	U. of British Col.	U. of British Col.	U. of British Col.	U. of British Col. Bowling Green St. U.

Source: Compiled by David J Webb, BYU Outdoors Unlimited, Brigham Young University (1990).

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Benefits of outdoor programs to participants would be the following: psychological, sociological, educational, and physical. Table 3 lists specific details of these potential benefits.

Table 3

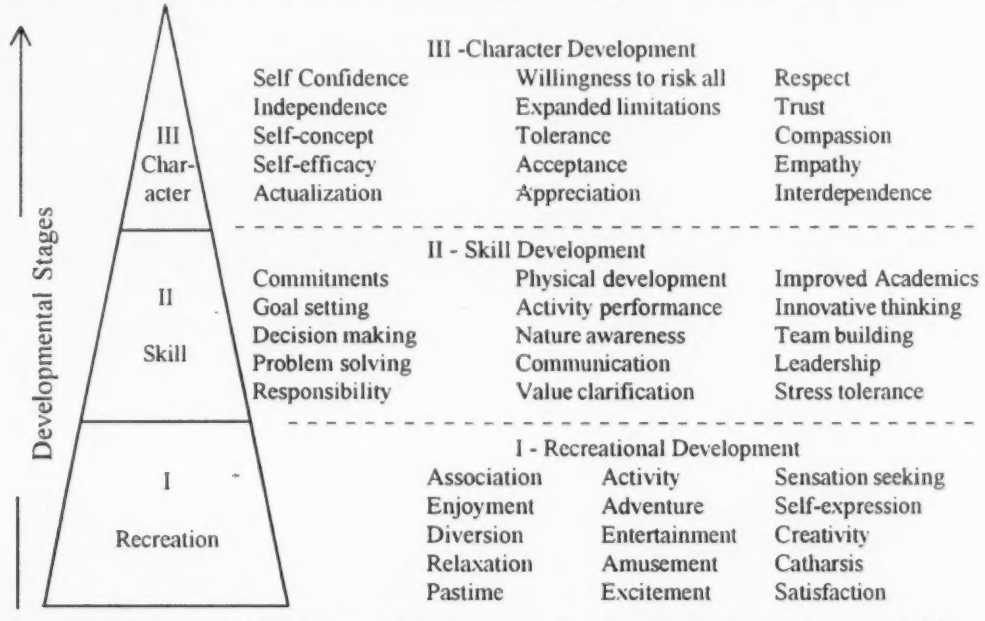
Potential Benefits of Outdoor Adventure Pursuits

Psychological	Sociological	Educational	Physical
Self-concept	Compassion	Outdoor education	Fitness
Confidence	Group cooperation	Nature awareness	Skills
Self-efficacy	Respect for others	Conservation education	Strength
Sensation seeking	Communication	Problem solving	Coordination
Actualization	Behavior feedback	Value education	Catharsis
Well-being	Friendship	Outdoor education	Exercise
Personal testing	Belonging	Improved academics	Balance

Source: Alan W. Ewert (1989). *Outdoor Adventure Pursuits: Foundations, Models, and Theories* (Table 4.1, p. 49). Columbus, Ohio: Publishing Horizions.

Table 4

Developmental Stages of Recreation, and Associated Benefits



Source: Compiled by David J Webb, BYU Outdoors Unlimited, Brigham Young Unviversity (1990).

Goals of the outdoor program for the participant would include recreation and recreation development, skill development, and character development. A typical program uses recreation as a "tool" to encourage skill development. Skill development is then used as a "tool" to encourage character development. These program goals are those that are typically used as justification to receive the university's support. Programs that balance these three goals in a cost-effective manner can usually attain broad university support. Table 4 details some of the associated benefits of this developmental model.

Components Forming an Outdoor Program

Listed are the controlling components of a successful outdoor program. The six components that shape outdoor programs are:

1. Users of the program services
2. Politics: Internal and external of the organization and sponsor
3. Personality/Abilities/Interests of the program director
4. Traditions of the program and sponsor
5. Local and regional geography
6. Financial source and size.

Attempting change in one area will impact and require adjustment in almost all areas. Be prepared and prepare others before initiating changes.

Summary of Data

University outdoor programs were grouped by full time student enrollment in the following way:

Full Time Students	**2nd Edition**	1st Edition
less than 4,999	**33%**	33%
5,000-9,999	**21%**	21%
10,000-29,999	**38%**	45%
30,000-50,000	**8%**	

Of the 89 largest universities, 34% have outdoor programs (1990).
Of the 37 universities with the most National Freshman Merit Scholars, 49% have outdoor programs (1990).

Existing outdoor programs were established during the following time periods:

Year Founded	**2nd Edition**	1st Edition
1910s	2 programs (1%)	2 programs (1%)
1930s	2 programs (1%)	2 programs (1%)
1950s	2 programs (1%)	2 programs (1%)
1960s	14 programs (8%)	9 programs (6%)
1970-75	47 programs (26%)	48 programs (30%)
1976-80	39 programs (22%)	37 programs (23%)
1981-85	36 programs (20%)	32 programs (20%)
1986-90	31 programs (17%)	28 programs (18%)
1991-93	7 programs (4%)	
Total number of programs	180 programs	160 programs

These outdoor programs report to the following organizations:

Organization	2nd Edition	1st Edition
PE Department	15 programs (8%)	12 programs (8%)
Unions/Student affairs departments	64 programs (36%)	59 programs (37%)
Intramural/Recreation Sports departments	82 programs (46%)	66 programs (41%)
misc. & combinations of departments	19 programs (10%)	23 programs (14%)

Of the delivery models for these outdoor programs:

Delivery Model	2nd Edition	1st Edition
Common Adventure	21 programs (12%)	17 programs (11%)
Club	22 programs (12%)	20 programs (12%)
PE	12 programs (7%)	6 programs (4%)
SST	121 programs (66%)	108 programs (68%)
Other	5 programs (3%)	9 programs (5%)

Universities with rental services:

Gross rental income collected	2nd Edition	1st Edition
$80,000-150,000	2 programs (2%)	2 programs (2%)
$10,000-79,999	47 programs (37%)	38 programs (32%)
$0-9,999	75 programs (60%)	76 programs (66%)
Total number of programs	124 programs (69%)	116 programs (73%)
Total gross rental income	**$2,065,387**	$1,750,993
Largest gross rental income	$328,617 University of Calgary	$311,713 University of Calgary

Universities with repair services:

Gross repair income collected	2nd Edition	1st Edition
$20,000-40,000	3 programs (8%)	6 programs (17%)
$1,000-19,999	20 programs (51%)	7 programs (20%)
$0-999	16 programs (41%)	21 programs (63%)
Total number of programs	39 programs (22%)	34 programs (23%)
Total gross repair income	**$184,554**	$205,487
Largest gross repair income	$40,000 (University of Cal-Davis)	$40,000 (University of Cal-Davis)

Universities with retail services:

Gross retail income collected	2nd Edition	1st Edition
$80,000-200,000	3 programs (9%)	3 programs (9%)
$12,000-79,999	5 programs (15%)	6 programs (17%)
$1,000-11,999	16 programs (47%)	15 programs (44%)
$0-999	10 programs (30%)	10 programs (30%)
Total number of programs	34 programs (19%)	34 programs (23%)
Total gross repair income	**$518,118**	$650,490
Largest gross retail income	$80,000-125,000 (University of Cal-Davis)	$80,000-156,000 (University of Cal-Davis)

Universities with programmatic services:

Amount of revenue collected	2nd Edition	1st Edition
$500,000-$800,000	2 programs (2%)	3 programs (3%)
$200,000-$499,999	6 programs (4%)	29 programs (25%)
$10,000-$199,999	67 programs (52%)	20 programs (17%)
$1,000-$9,999	49 programs (38%)	44 programs (38%)
$0-$999	5 programs (4%)	7 programs (6%)
Total number offering programs	129 programs (72%)	116 programs (77%)
Total gross program income collected	**$5,881,111**	$4,862,084

Universities with gifts and donations:

Amount of gifts and donations	2nd Edition	1st Edition
$50,000-150,000	3 programs (12%)	1 programs (5%)
$10,000-,49,999	7 programs (28%)	5 programs (23%)
$1,000-9,999	10 programs (40%)	10programs (45%)
$0-999	5 programs (20%)	6programs (27%)
Total number of programs	25 programs (14%)	22 programs (14%)
Total gross donation income	**$462,466**	$241,722
largest amount received	$151,144 (Idaho State University)	$142,000 (Idaho State University)

Total gross income by outdoor program service:

	2nd Edition Number of Programs	Revenue Generated
Rental income	124 programs	$2,065,387 (23%)
Repair income	39 programs	$184,554 (2%)
Retail income	34 programs	$518,118 (6%)
Program income	129 programs	$5,881,111 (64%)
Gifts & Grants income	25 programs	$462,466 (5%)
Total gross income		**$9,178,635** (100%)

	1st Edition Number of Programs	Revenue Generated
Rental income	116 programs	$1,750,993 (23%)
Repair income	34 programs	$205,487 (2%)
Retail income	34 programs	$650,490 (8%)
Program income	116 programs	$4,862,084 (63%)
Gifts & Grants income	22 programs	$291,722 (4%)
Total gross income		$7,760,776 (100%)

Gross Income of programs:

Amount of Income	2nd Edition	1st Edition
$500,000-800,000	4 programs (2%)	4 programs (3%)
$100,000-499,000	15 programs (8%)	13 programs (8%)
$10,000-99,999	80 programs (45%)	65 programs (41%)
$1,000-9,999	47 programs (26%)	48 programs (30%)
$0-999	34 programs (19%)	30 programs (18%)
Total number of programs	180 programs (100%)	160 programs (100%)

***Gross Expense of programs:**

Expenses realized	2nd Edition	1st Edition
$500,000-900,000	4 programs (2%)	4 programs (2%)
$100,000-499,999	27 programs (15%)	16 programs (10%)
$10,000-99,999	89 programs (49%)	83 programs (52%)
$1,000-9,999	37 programs (21%)	32 programs (20%)
$0-999	23 programs (13%)	25 programs (16%)
Total	180 programs (100%)	160 programs (100%)

***Net Income/Loss of programs:**

Amount collected or lost	2nd Edition	1st Edition
collected $20,000-80,000	7 programs (4%)	9 programs (6%)
collected $1,000-19,999	25 programs (14%)	19 programs (12%)
collected $1-999	8 programs (4%)	8 programs (5%)
broke even at $0	14 programs (8%)	16 programs (10%)
lost $1-999	6 programs (3%)	11 programs (7%)
lost $1,000-9,999	37 programs (21%)	48 programs (30%)
lost $10,000-49,999	44 programs (24%)	31 programs (19%)
lost $50,000-75,000	6 programs (3%)	5 programs (3%)
lost $75,001 and up	8 programs (5%)	3 programs (2%)
unknown	25 programs (14%)	9 programs (6%)
Total number of programs	180 programs (100%)	160 programs (100%)

***Programs % Return or % Subsidy:**

	2nd Edition	1st Edition
50-100%	3 programs (2%)	4 programs (3%)
20-49%	7 programs (4%)	9 programs (6%)
10-19%	13 programs (7%)	8 programs (5%)
1-9%	17 programs (9%)	13 programs (8%)
0%	15 programs (8%)	10 programs (6%)
-1% to -10%	8 programs (4%)	23 programs (13%)
-11% to -49%	30 programs (17%)	18 programs (11%)
-50% to -99%	23 programs (13%)	21 programs (13%)
-100% to -200%	17 programs (9%)	12 programs (8%)
-201% to -999%	24 programs (13%)	18 programs (11%)
-1000 % to -3,999%	1 programs (1%)	1 program (1%)
-4,000% and up		1 program (1%)
unknown	22 programs (13%)	22 programs (14%)
Total number of programs	180 programs(100%)	160 programs (100%)

*The figures for gross expense, net income/net loss, and % return or % subsidy can be misleading. Accuracy of data collection and differences of expense items among the reporting outdoor programs does not permit exact comparisons among programs. Some programs did not have expense records for the outdoor program. Other programs admitted to poorly kept expense records for the outdoor program. Some outdoor program

expenses at one institution would be paid by the general fund and would not reflect an expense to the outdoor program expense budget, while other programs would be required to keep accurate expense records and pay all expenses (including full and part time employees, phone, office, employee benefits, rent to the university for the outdoor program space, administrative overhead to the university for the salaries, office, etc. of the directors and deans supervising the outdoor program director). Those programs with accurate expense records, covering more of the expenses related to the outdoor program, report greater expenses, lower net incomes, and lower percent investment returns than a similar program who does not have accurate record keeping or full accountability for the real expenses of operating a outdoor program. We cannot make exact comparisons for example, comparing apples to apples, but can draw generalized conclusions because we are comparing fruit with fruit.

Number of outdoor trips offered by each university:

Number of trips offered	2nd Edition	1st Edition
20-24	3 programs (2%)	
10-19	55 programs (31%)	52 programs (36%)
5-9	81 programs (47%)	71 programs (49%)
1-4	35 programs (20%)	21 programs (15%)
Total number of programs	174 programs	144 programs
different types of trips offered	172	83

Trips most frequently offered by universities were:

	2nd Edition		1st Edition	
Rank	Activity	Frequency	Activity	Frequency
1	Backpacking	138 (79%)	Kayak/Canoe	135 (92%)
2	Canoeing	130 (75%)	Backpacking	134 (91%)
3	Rock/Ice Climbing	112 (64%)	Nordic Skiing	109 (75%)
4	Cross-Country Skiing	99 (57%)	Rock climbing	106 (70%)
5	Bicycling/Mtn. Biking	99 (57%)	Bicycling	105 (70%)
6	Rafting	97 (56%)	Rafting	97 (68%)
7	Downhill Skiing	91 (52%)	Downhill Skiing	82 (66%)
8	Spelunking	67 (39%)	Sailing/Boardsailing	61 (44%)
9	Kayaking	65 (37%)	Caving	58 (44%)
10	Boardsailing	46 (26%)	Orienteering	37 (25%)

Activities with the most trips that occurred:

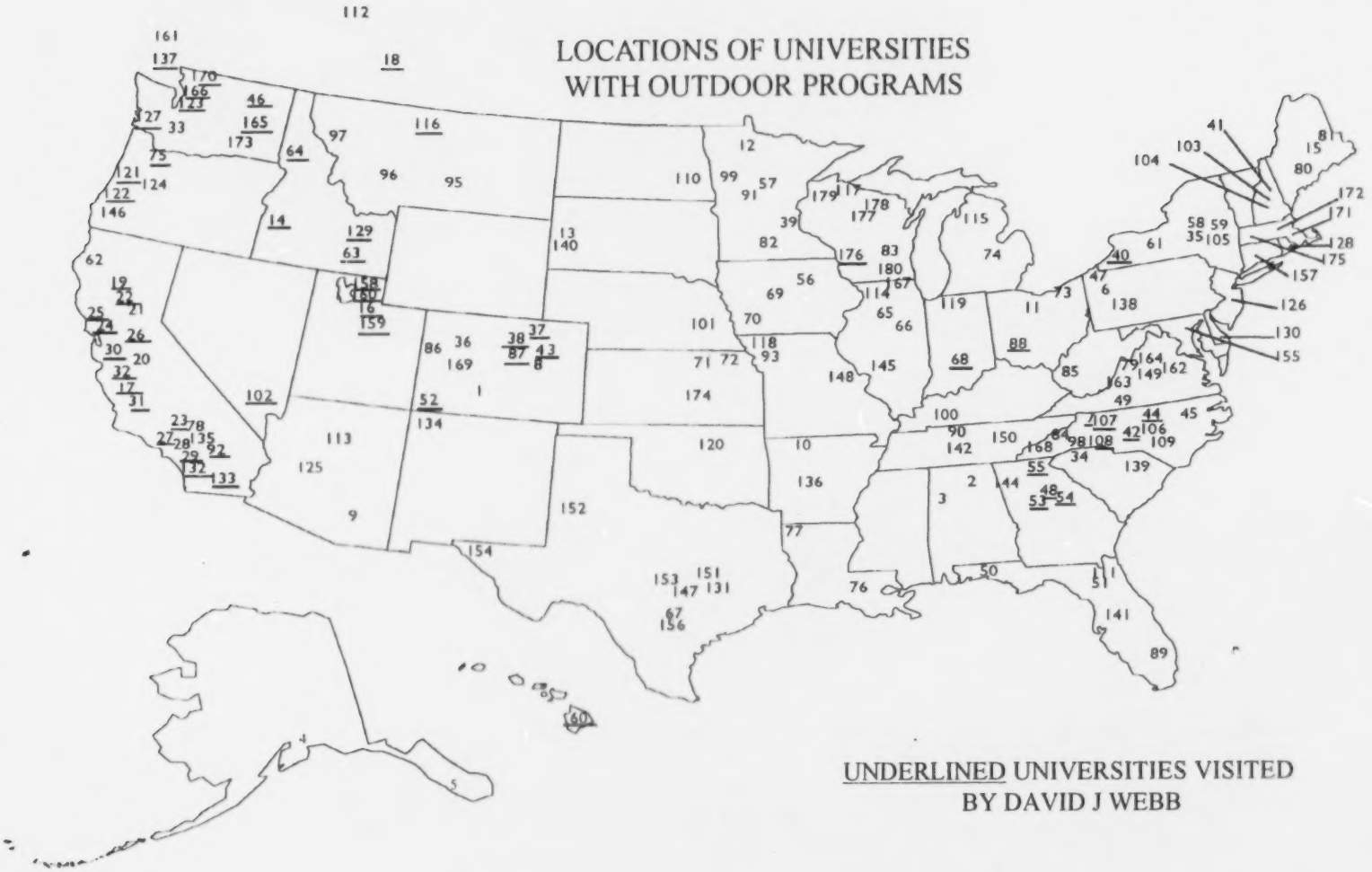
	2nd Edition		1st Edition	
Rank	Activity	Frequency	Activity	Frequency
1	Climbing Wall	12,840 (52%)	Kayak/Canoe	1,633 (16%)
2	Rock/Ice Climbing	1,387 (6%)	Rock Climbing	1,075 (11%)
3	Backpacking	1,290 (5%)	Backpacking	1,060 (11%)
4	Ropes Course	1,287 (5%)	Nordic Skiing	822 (8%)
5	Canoeing	1,163 (5%)	Rafting	688 (7%)
6	Kayaking	962 (4%)	Sailing/Boardsailing	680 (7%)
7	Cross-Country Skiing	736 (3%)	Bicycling	587 (6%)
8	Rafting	678 (3%)	Downhill Skiing	366 (5%)
9	Bicycling/Mtn Biking	606 (2%)	Caving	284 (4%)
10	Boardsailing	468 (2%)	Search and Rescue/First Aid	231 (2%)
Total number of trips		24,498		9,431
Number of other activities		162		73
Other/Miscellaneous Trips		3,081 (13%)		2210 trips (21%)

Activities with the most participants:

	2nd Edition		1st Edition	
Rank	Activity	Participants	Activity	Participants
1	Rafting	18,069 (11%)	Backpacking	14,019 (11%)
2	Ropes Courses	17,052 (10%)	Rafting	13,645 (11%)
3	Backpacking	14,557 (9%)	Kayaking/Canoeing	12,244 (10%)
4	Rock/Ice Climbing	13,335 (8%)	Cross Country Skiing	11,733 (9%)
5	Downhill Skiing	11,942 (7%)	Sailng/Boardsailing	8,701 (7%)
6	Canoeing	10,659 (7%)	Downhill skiing	8,526 (7%)
7	Climbing Wall	10,007 (6%)	Rockclimbing	8,492 (7%)
8	Cross Country Skiing	8,568 (5%)	Bicycling	4,651 (4%)
9	Kayaking	8,482 (5%)	Spelunking	1,891 (2%)
10	Sailing	7,094 (4%)	Orienteering	808 (1%)
	Remainder	43,667 (28%)	Remainder	33,147 (26%)
	Total Participants	163,432 (100%)		126,500

Summary

There is a significant diversity of goals, benefits, delivery models, services, activities, financial structures, and sizes of outdoor programs. As a result of knowing what outdoor programs are doing, outdoor program professionals will be able to expand their choices and evaluate their performance. The directory and data base that this information was summarized from contains specific demographical, financial, and programmatic data on most of the outdoor programs (180+) presently operating in North America (1996). Names, addresses, and phone numbers, listed by university, state, and alphabetically can facilitate networking with other professionals. As a result of knowing who operates outdoor programs, how to contact them, and what they are doing, outdoor programs should be able to improve and better serve their participants and institutions.



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ADAMS STATE COLLEGE

Founded: 1921
Outdoor Program (1970)
1st & Stadium
Alamosa, CO 81102
Program Dir: Jim Woodke (1969)
Phone: (719) 589-7962
Equipment Dir: none
Phone:
Program Type: SST
Professional Organization: ACU-I

Full time students:	2,500
Rental Income:	$5,800
Repair Income:	$300
Retail Income:	$0
Trips/etc. Income:	$0
Donations/Grants:	$0
Gross Income:	$6,100
Gross Expenses:	$5,800
Net Income/Loss:	$300
Resource Room:	900 sq. ft.

Program	Trips	Participants
Backpacking	6	26
Bicycling/Mountain Biking	5	12
Cross-Country skiing	6	36
Downhill skiing	5	1800
Kayaking	2	8
Rafting	1	25
Ropes Course	1	22
Totals	26	1929

ALABAMA, UNIVERSITY OF

Founded: 1966
UAB Outdoor Recreation (1984)
Box 2, UAB Station
Birmingham, AL 35294
Program Dir: Wayne Taylor (1989)
Phone: (205) 934-8224
Equipment Dir: Wayne Taylor 1989
Phone: (205) 934-8224
Program Type: SST
Professional Organization: NIRSA

Full time students:	15,500
Rental Income:	$10,000
Repair Income:	$0
Retail Income:	$0
Trips/etc. Income:	$50,000
Donations/Grants:	$500
Gross Income:	$60,500
Gross Expenses:	$60,500
Net Income/Loss:	$0
Resource Room:	200 sq. ft.

Program	Trips	Participants
Backpacking	8	90
Bicycling/Mountain Biking	2	20
Canoeing	2	18
Conservation Work Days	3	30
Day Hikes	9	100
Downhill Skiing	4	100
Quadrathlon	1	7
Rafting	6	72
Rock/Ice Climbing	3	35
Spelunking	1	10
Water Skiing	4	40
Totals	43	522

ALABAMA, UNIVERSITY OF

Founded: 1831
Alabama Outdoors (1984)
PO Box 870373
Tuscaloosa, AL 35487
Program Crd: Kenneth Dunlap (1988)
Phone: (205) 348-5140
Equipment Dir: none
Phone:
Program Type: CA
Professional Organization: NIRSA

Full time students:	19,000
Rental Income:	$0
Repair Income:	$0
Retail Income:	$0
Trips/etc. Income:	$12,000
Donations/Grants:	$0
Gross Income:	$12,000
Gross Expenses:	$11,000
Net Income/Loss:	$1,000
Resource Room:	0 sq. ft.

Program	Trips	Participants
Downhill Skiing	1	30
Totals	1	30

ALASKA, UNIVERSITY OF

Founded: 1970
Alaska Wilderness Studies (1982)
3211 Providence Dr.
Anchorage, AK 99508
Program Dir: Todd Miner (1986)
Phone: (907) 786-1468
Equipment Crd: John Kress (1989)
Phone: (907) 786-1468
Program Type: PE
Professional Organization: AAHPERD

Full time students:	7,000
Rental Income:	$0
Repair Income:	$0
Retail Income:	$350
Trips/etc. Income:	$37,500
Donations/Grants:	$0
Gross Income:	$37,500
Gross Expenses:	$112,000
Net Income/Loss:	($74,150)
Resource Room:	20 sq. ft.

Program	Trips	Participants
Backpacking	9	108
Canoeing	5	40
Cross-Country Skiing	15	210
Dog mushing - ski joring	6	52
Downhill Skiing	9	103
Expeditions (4 days +)	3	34
Ice Climbing	4	34
Mountaineering	28	530
Natural history	19	243
Orienteering	3	24
Rafting	2	30
Rock/Ice Climbing	8	72
Scuba Diving	3	42
Survival	13	210
Totals	134	1972

ALASKA, UNIVERSITY OF

Founded: 1971
Students Activities (1981)
11120 Glacier Highway
Juneau, AK 99801
Program Dir: Tish Griffin
Phone: (907) 789-4528
Equipment Dir: none
Phone:
Program Type: CA
Professional Organization: NIRSA

Full time students:	3,000
Rental Income:	$1,000
Repair Income:	$500
Retail Income:	$0
Trips/etc. Income:	$5,000
Donations/Grants:	$0
Gross Income:	$6,500
Gross Expenses:	$55,800
Net Income/Loss:	($50,300)
Resource Room:	0 sq. ft.

Program	Trips	Participants
Backpacking	12	150
Bicycling/Mountain Biking	2	30
Canoeing	90	200
Cross-Country Skiing	1	20
Downhill Skiing	15	250
Glacier Exploration	1	15
Rock/Ice Climbing	1	5
Totals	122	670

ALLEGHENY COLLEGE

Founded: 1815
Allegheny Outing Club (1930)
Box 133 Allegheny College
Meadville, PA 16335
Program Dir: Carol Chatfield (1988)
Phone: (814) 332-2310
Equipment Dir: none
Phone:
Program Type: CLUB
Professional Organization: ACU-I

Full time students:	1,700
Rental Income:	$0
Repair Income:	$0
Retail Income:	$0
Trips/etc. Income:	$0
Donations/Grants:	$0
Gross Income:	$0
Gross Expenses:	$0
Net Income/Loss:	$0
Resource Room:	5 sq. ft.

Program	Trips	Participants
Backpacking	4	35
Broom ball	1	40
Canoeing	4	20
Cross-Country Skiing	1	10
Horseback Riding	2	12
Rafting	1	25
Tobagganing	1	10
Totals	14	152

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Outdoor Programs

listed by university alphabetically with enrollment and outdoor program name

	University	Enrollment	Program Name
1	Adams State College (Alamosa, CO)	2,500	Outdoor Program
2	Alabama, University of (Birmingham, AL)	15,500	UAB Outdoor Recreation
3	Alabama, University of (Tuscaloosa, AL)	19,000	Alabama Outdoors
4	Alaska, University of (Anchorage, AK)	7,000	Alaska Wilderness Studies
5	Alaska, University of (Southeast, AK)	3,000	Students Activities
6	Allegheny College (Meadville, PA)	1,700	Allegheny Outing Club
7	Appalachian State University (Boone, NC)	11,000	Outdoor Programs
8	Arapahoe Community College (Littleton, CO)	3,691	Recreational Services
9	Arizona, University of (Tucson, AZ)	35,000	Outdoor Adventures
10	Arkansas, University of (Fayetteville, AR)	13,000	Outdoor Recreation Center
11	Baldwin Wallace College (Berea, OH)	4,500	Outdoor Recreation
12	Bemidji State University (Bemidji, MN)	4,500	Outdoor Program Center
13	Black Hills State University (Spearfish, SD)	2,242	Outing Center
14	Boise State University (Boise, ID)	10,000	Outdoor Adventure
15	Bowdoin College (Brunswick, ME)	1,400	Bowdoin Outing Club
16	Brigham Young University (Provo, UT)	27,500	BYU Outdoors Unlimited
17	Cal Poly San Luis Obispo (CA)	16,000	ASI Outings
18	Calgary, University of (Alberta, Canada)	17,000	Outdoor Program Center
19	California State University (Chico)	15,000	Adventure Outings
20	California State University (Fresno)	18,600	Campus Recreational Services
21	California State University (Sacramento)	18,000	Peak Adventures
22	California State University (Sacramento-Aquatics)	24,000	CSUS Aquatic Center
23	California State University (San Bernadino)	9,000	Escape
24	California, University of (Berkeley)	30,000	Cal Adventures
25	California, University of (Davis)	24,000	Outdoor Adventures
26	California, University of (Davis-Bike Barn)	23,000	The Bike Barn
27	California, University of (Irvine)	16,000	Coop. Outdoor Program
28	California, University of (Los Angeles)	34,000	Recreation Class Program
29	California, University of (San Diego)	17,000	Outback Adventures
30	California, University of (San Francisco)	4,000	Outdoors Unlimited
31	California, University of (Santa Barbara)	18,000	UCSB Adventure Programs
32	California, University of (Santa Cruz)	9,689	Recreation Department
33	Central Washington University (Ellensburg)	7,000	Tent-n-Tube/Outdoor Prog
34	Clemson University (Clemson, SC)	16,000	Outdoor Rec. Committee
35	Colgate University (Hamilton, NY)	2,600	Outdoor Education
36	Colorado Mountain College (Glenwood Springs)	500	Wilderness Studies
37	Colorado State University (Fort Collins)	20,000	Outdoor Adventure Program
38	Colorado, University of (Boulder)	25,000	CU Outdoor Program
39	Concordia College (St. Paul, MN)	1,200	Student Union Outdoor Prog
40	Cornell University (Ithaca, NY)	17,500	Cornell Outdoor Education
41	Dartmouth College (Hanover, NH)	5,000	Outdoor Programs
42	Davidson College (Davidson, NC)	1,400	Davison Outdoors Ctr.
43	Denver, University of (Denver)	5,000	Recreation for Life

44	Duke University (Durham, NC)	9,000	Project W.I.L.D.
45	East Carolina University (Greenville, NC)	17,000	The ROC
46	Eastern Washington University (Cheney)	8,000	EWU Outdoor Program
47	Edinboro Univ. of Pennsylvania (PA)	8,000	Outdoor Recreation
48	Emory University (Atlanta, GA)	9,600	Outing Club
49	Ferrum College (Ferrum, VA)	1,200	Outdoor Recreation Major
50	Florida State University (Tallahassee)	28,000	Outdoor Pursuits
51	Florida, University of (Gainesville)	36,000	Travel and Recreation Program
52	Fort Lewis College (Durango, CO)	4,000	Outdoor Pursuits
53	Georgia Institute of Tech. (Atlanta)	11,000	Outdoor Recreation Georgia Tech
54	Georgia State University (Atlanta)	23,500	Touch the Earth
55	Georgia, University of (Athens)	28,000	GORP
56	Grinnell College (Grinnell, IA)	1,250	Grinnell Outdoor Rec Prog
57	Gustavus Adolphus College (St. Peter, MN)	2,300	Outdoor Program
58	Hamilton College (Clinton, NY)	1,700	HC Adirondack Adventure
59	Hartwick College (Oneonta, NY)	1,400	Challenge Programs
60	Hawaii, University of (Honolulu)	18,000	Hemenway Leisure Center
61	Houghton College (Houghton, NY)	1,500	Outdoor Club
62	Humboldt State University (Arcata, CA)	7,400	Center Activities
63	Idaho State University (Pocatello)	11,000	ISU Student Union Outdoor Prog
64	Idaho, University of (Moscow)	10,000	U of I Outdoor Program
65	Illinois State University (Normal)	20,000	Get-Away Outdoor Program
66	Illinois, University of (Champaign)	35,000	Div of Campus Rec Outdoor Prog
67	Incarnate Word College (San Antonio, TX)	2,500	Rec and Intra Program
68	Indiana University (Bloomington)	33,000	IMU Outfitters
69	Iowa State University (Ames)	26,000	Outdoor Recreation Center
70	Iowa, University of (Iowa City)	27,500	Touch the Earth
71	Kansas State University (Manhattan)	18,000	Recreational Services
72	Kansas, University of (Lawrence)	26,825	Wilderness Discovery
73	Kent State University (Kent, OH)	25,000	Sport Clubs
74	Lawrence University (Appleton, WI)	1,200	Outdoor Recreation Club
75	Lewis & Clark College (Portland, OR)	1,800	College Outdoors
76	Louisiana State University (Baton Rouge)	25,000	Leisure Services
77	Louisiana State University (Shreveport, LA)	2,900	Outdoor Experience
78	Loyola Marymount (Los Angeles)	3,500	Direct Route
79	Lynchburg College (Lynchburg, VA)	2,000	New Horizons
80	Maine, University of (Augusta)	1,000	Student Activities
81	Maine, University of (Orono)	13,000	Maine Bound
82	Mankato State University (Mankato, MN)	16,000	MAVS
83	Marquette University (Milwaukee, WI)	8,500	Outdoor Rec. Center
84	Mars Hill College (Mars Hill, NC)	1,300	MHC - Outdoor Program
85	Marshall University (Huntington, WV)	7,700	Recreational Sports
86	Mesa State College (Grand Junction, CO)	4,300	Mesa College Outing Prog
87	Metropolitan State College (Denver, CO)	30,000	Outdoor Adventure
88	Miami, University of (Coral Gables, FL)	12,000	Outdoor Recreation Club
89	Miami, University of Ohio (Oxford, OH)	16,000	Outdoor Recreation Prog
90	Middle Tennessee State U. (Murfeesboro, TN)	17,000	Outdoor Pursuits
91	Minnesota, University of (Duluth, MN)	7,000	UMD Outdoor Program

92	Mission Bay Aquatic Center (San Diego, CA)	48,000	Mission Bay Aquatic Center
93	Missouri, University of (Kansas City)	10,000	Wilderness Adventures
94	Missouri, University of (Rolla)	4,800	On the Loose
95	Montana State University (Billings, MT)	4,000	EMC Outdoor Program
96	Montana State University (Bozeman)	10,500	ASMSU Outdoor Recreation
97	Montana, University of (Missoula)	9,478	Campus Rec Outdoor Prog
98	Montreat-Anderson College (Montreat, NC)	400	Discovery
99	Moorhead State University (Moorhead, MN)	9,000	Outing Center
100	Murray State University (Murray, KY)	8,200	Leisure Connection
101	Nebraska, University of (Lincoln)	24,000	Outdoor Adventure
102	Nevada, University of (Las Vegas)	19,800	UNLV Outdoor Adventures
103	New England College (Henniker, NH)	900	Adventure Band
104	New Hampshire, University of (Durham)	10,000	NH Outing Club
105	New York, State University of (Oneonta)	6,000	Oneonta Outing Club
106	North Carolina State Univ. (Raleigh)	26,000	Outdoor Activities Program
107	North Carolina, University of (Asheville)	3,200	Outdoor Programs
108	North Carolina, University of (Charlotte)	12,000	Venture Program
109	North Carolina, University of (Wilmington)	8,000	Discover Outdr Leadership
110	North Dakota State University (Fargo)	9,500	Outing Center
111	North Florida, University of (Jacksonville)	2,939	Student Rec Sports Club
112	Northern Alberta Inst. of Tech. (Edmonton)	7,000	Outdoor Pursuits
113	Northern Arizona University (Flagstaff)	14,000	NAU Outdoors
114	Northern Illinois University (Dekalb)	32,409	OCR Outdoors
115	Northern Michigan University (Marquette)	8,000	Outdoor Recreation Center
116	Northern Montana College (Havre)	1,800	Outdoor Activities & Rec.
117	Northland College (Ashland, WI)	700	Rec Services/Equip Shed
118	Northwest Missouri State Univ. (Maryville)	5,000	Outdoor Prog at Northwest
119	Notre Dame, University of (Notre Dame, IN)	9,500	Outdoor Recreation
120	Oklahoma State University (Stillwater)	18,000	Outdoor Adventure
121	Oregon State University (Corvallis)	16,000	Outdoor Recreation Center
122	Oregon, University of (Eugene)	17,000	UO Outdoor Program
123	Pacific Lutheran University (Tacoma, WA)	4,000	ASPLU- Outdoor Rec
124	Pacific University (Forest Grove, OR)	1,100	Pacific Outback
125	Prescott College (Prescott, AZ)	370	Outdoor Action
126	Princeton University (Princeton, NJ)	6,000	Outdoor Action Program
127	Puget Sound, University of (Tacoma, WA)	3,000	Personal Growth
128	Rhode Island College (Providence)	5,000	Challenge Program
129	Ricks College (Rexburg, ID)	7,500	Department of Rec Ed
130	Salisbury State University (Salisbury, MD)	6,000	Campus Recreation
131	Sam Houston State University (Huntsville, TX)	12,800	SHSU Outdoor Recreation
132	San Diego State University (CA)	28,000	The Leisure Connection
133	San Diego, University of (CA)	5,000	Outdoor Adventures
134	San Juan College (Farmington, NM)	4,200	Outdoor Program
135	Scripps College (Claremont, CA)	600	Outdoor Adventure Prog
136	Sheldon Jackson College (Sitka, AK)	350	Wilderness Pursuits
137	Simon Fraser University (Burnaby, BC)	9,000	Outdoor Recreation Center
138	Slippery Rock University (Slippery Rock, PA)	7,200	University Union Outfitter
139	South Carolina, University of (Sumter)	1,600	Outdoor Recreation Club

140	South Dakota School of M & T (Rapid City)	2,000	Tech Outing Center
141	South Florida, University of (Tampa)	35,000	Outdoor Adventures Prog
142	South, University of the (Sewanee, TN)	1,100	Sewanee Outing Club
143	Southeast Missouri State Univ. (Cape Girardeau)	8,500	REACH
144	Southern College of Tech. (Marietta, GA)	3,800	Outdoor Program
145	Southern Illinois University (Edwardsville)	10,000	Outdoor Adventure
146	Southern Oregon St. College (Ashland)	4,500	SOSC Outdoor Program
147	Southwest Texas State Univ. (San Marcos)	20,000	Outdoor Center
148	St. Louis Community College (MO)	15,000	Meramec Outdoors Club
149	Sweet Briar College (VA)	600	SWEBOP
150	Tennessee, University of (Chattanooga)	6,500	Recreation/Intramural Dept.
151	Texas A&M University (College Station)	41,710	TAMU Outdoors
152	Texas Tech University (Lubbock)	20,000	Outdoor Program
153	Texas, University of (Austin)	50,000	Outdoor Adventures
154	Texas, University of (El Paso)	16,000	Outdoor Adventure Prog
155	Towson State University (MD)	10,000	Outdoor Adventures Unlimited
156	Trinity University (San Antonio, TX)	2,500	Outdoor Recreation
157	U.S. Coast Guard Academy (New London, CT)	100	Adventure Sports I & II
158	Utah State University (Logan)	14,000	Outdoor Program
159	Utah Valley State College (Orem)	7,500	The Outpost
160	Utah, University of (Salt Lake City)	26,000	Outdoor Recreation Prog
161	Victoria, University of (BC)	15,000	Outdoor Rec Resource Cntr
162	Virginia Commonwealth Univ. (Richmond)	20,000	Outdoor Adventure Prog
163	Virginia Tech (Blacksburg)	2,400	Rec Sports- Outdoor Adv.
164	Virginia, University of (Charlottesville)	17,000	Outdoor Recreation Prog
165	Washington State University (Pullman)	17,000	Outdoor Recreation Center
166	Washington, University of (Seattle)	33,000	Waterfront Activities Cntr
167	Waubonsee Comm College (Sugar Grove, IL)	7,000	Adventures Outdoors
168	Western Carolina University (Cullowee, NC)	6,000	Last Minute Productions
169	Western State College (Gunnison, CO)	2,600	Wilderness Pursuits
170	Western Washington University (Bellingham)	10,500	The Outdoor Center
171	Westfield State College (MA)	3,000	Outdoor Rec/Outing Club
172	Wheaton College (Norton, MA)	1,200	Outdoor Pursuits
173	Whitman College (Walla Walla, WA)	1,200	WC Outdoor Program
174	Wichita State University (Wichita, KS)	17,500	Outdoor Recreation Prog
175	Williams College (Williamstown, MA)	2,000	Williams Outing Club
176	Wisconsin, University of (Madison)	42,000	The Wisconsin Hoofers
177	Wisconsin, University of (Stevens Point)	8,400	UWSP Recreational Services
178	Wisconsin, University of (Stout-Menomonie)	7,500	Alfresco Club/Rec Center
179	Wisconsin, University of (Superior)	2,200	Northern Exposure
180	Wisconsin, University of (Whitewater)	11,000	Outdoor Adventure Ctr

Of the 180 Outdoor Programs, these are the top ten ranked by Gross Income

University	Income	Expenses	Net Inc/Loss
1. Calgary, University of (Alberta, Canada)	$748,024	$747,893	$131
2. Wisconsin, University of (Madison)	$696,873	$656,190	$40,683
3. Mission Bay Aquatic Center (San Diego, CA)	$655,172	$775,494	($120,322)
4. California, University of (Berkeley)	$584,000	$710,000	($126,000)
5. California State University (Sacramento-Aquatics)	$415,974	$390,000	$25,974
6. Cornell University (Ithaca, NY)	$404,000	$400,000	$4,000
7. California, University of (Davis)	$253,000	$208,000	$45,000
8. Idaho State University (Pocatello)	$216,644	$260,296	($436,520)
9. California, University of (San Francisco)	$211,152	$185,816	$25,336
10. Minnesota, University of (Duluth, MN)	$209,850	$316,000	($106,150)

Of the 180 Outdoor Programs, these are the top ten ranked by Rental Income

University	Rental
1. Calgary, University of (Alberta, Canada)	$328,617
2. Washington, University of (Seattle)	$149,581
3. California, University of (Berkeley)	$130,000
4. California, University of (San Diego)	$78,512
5. Utah, University of (Salt Lake City)	$73,000
6. California, University of (San Francisco)	$72,684
7. Idaho, University of (Moscow)	$54,000
8. Montana State University (Bozeman)	$45,849
9. San Diego State University (CA)	$43,200
10. Idaho State University (Pocatello)	$42,000

Of the 180 Outdoor Programs, these are the top ten ranked by Repair Income

University	Repair
1. California, University of (Davis-Bike Barn)	$40,000
2. Georgia State University (Atlanta)	$28,000
3. California, University of (Irvine)	$20,000
4. Calgary, University of (Alberta, Canada)	$16,125
5. California State University (Sacramento)	$15,394
6. Miami, University of Ohio (Oxford, OH)	$15,000
7. Western Washington University (Bellingham)	$9,900
8. Florida, University of (Gainesville)	$5,000
9. Southeast Missouri State Univ. (Cape Girardeau)	$4,719
10. Oklahoma State University (Stillwater)	$4,500

Of the 180 Outdoor Programs, these are the top ten ranked by Retail Income

University	Retail
1. California, University of (Davis-Bike Barn)	$125,000
2. Calgary, University of (Alberta, Canada)	$86,551
3. California, University of (Irvine)	$80,000
4. Oklahoma State University (Stillwater)	$49,000
5. Cornell University (Ithaca, NY)	$45,000
6. California State University (Sacramento)	$38,966
7. California, University of (San Francisco)	$13,000
8. Humboldt State University (Arcata, CA)	$12,000
9. Wisconsin, University of (Madison)	$11,000
10.Utah Valley State College (Orem)	$6,000

Of the 180 Outdoor Programs, these are the top ten ranked by Program, Trip, and Activity Fee Income

University	Trips
1. Wisconsin, University of (Madison)	$637,573
2. Mission Bay Aquatic Center (San Diego, CA)	$630,172
3. California, University of (Berkeley)	$394,000
4. California State University (Sacramento-Aquatics)	$374,974
5. Calgary, University of (Alberta, Canada)	$316,731
6. Cornell University (Ithaca, NY)	$242,000
7. California, University of (Davis)	$214,000
8. Minnesota, University of (Duluth, MN)	$209,050
9. Georgia, University of (Athens)	$165,648
10.Dartmouth College (Hanover, NH)	$153,516

Of the 180 Outdoor Programs, these are the top ten ranked by Donation and Grant Income

University	Grants
1. Idaho State University (Pocatello)	$151,144
2. Cornell University (Ithaca, NY)	$85,000
3. California, University of (Berkeley)	$60,000
4. California, University of (San Francisco)	$48,225
5. Humboldt State University (Arcata, CA)	$22,500
6. California State University (Sacramento-Aquatics)	$15,000
7. Wisconsin, University of (Madison)	$12,300
8. South, University of the (Sewanee, TN)	$10,000
9. Bowdoin College (Brunswick, ME)	$10,000
10.Hawaii, University of (Honolulu)	$10,000

Of the 180 Outdoor Programs, these are the top ten ranked by Gross Income Per Student Enrolled

University	Gross Income per Student
1. Colorado Mountain College (Glenwood Springs)	$110.00
2. Montreat-Anderson College (Montreat, NC)	$72.50
3. California, University of (San Francisco)	$52.78
4. Calgary, University of (Alberta, Canada)	$44.00
5. Lewis & Clark College (Portland, OR)	$36.11
6. Colgate University (Hamilton, NY)	$35.97
7. Dartmouth College (Hanover, NH)	$33.90
8. Minnesota, University of (Duluth, MN)	$29.97
9. Cornell University (Ithaca, NY)	$23.08
10. Idaho State University (Pocatello)	$19.69

Of the 180 Outdoor Programs, these are the top ten ranked by Net Income/Loss

University	Income	Expenses	Net Inc
1. California, University of (Davis-Bike Barn)	$165,000	$85,000	$80,000
2. California, University of (Davis)	$253,000	$208,000	$45,000
3. Wisconsin, University of (Madison)	$696,873	$656,190	$40,683
4. Washington, University of (Seattle)	$149,581	$114,716	$34,865
5. California State University (Sacramento-Aquatics)	$415,974	$390,000	$25,974
6. California, University of (San Francisco)	$211,152	$185,816	$25,336
7. Georgia State University (Atlanta)	$181,200	$157,880	$23,320
8. Texas, University of (Austin)	$92,636	$74,826	$17,810
9. Florida, University of (Gainesville)	$82,000	$71,000	$11,000
10. South Florida, University of (Tampa)	$57,000	$50,000	$7,000

Of the 180 Outdoor Programs, these are the top ten ranked by Net Income/Loss Per Student Enrolled

University	Net Income/Loss per Student
1. Colorado Mountain College (Glenwood Springs)	$10.00
2. Northland College (Ashland, WI)	$8.57
3. California, University of (San Francisco)	$6.33
4. California, University of (Davis-Bike Barn)	$3.47
5. California, University of (Davis)	$1.87
6. Lawrence University (Appleton, WI)	$1.16
7. California State University (Sacramento-Aquatics)	$1.08
8. Washington, University of (Seattle)	$1.05
9. Georgia State University (Atlanta)	$0.99
10. Princeton University (Princeton, NJ)	$0.97

Of the 180 Outdoor Programs, these are the top ten ranked by Program Participants

University	SumOfParticipants
1. Calgary, University of (Alberta, Canada)	12,758
2. Wisconsin, University of (Madison)	10,214
3. Oklahoma State University (Stillwater)	9,550
4. Dartmouth College (Hanover, NH)	6,286
5. Oregon, University of (Eugene)	5,612
6. California, University of (Davis)	5,220
7. Colorado State University (Fort Collins)	4,413
8. Idaho State University (Pocatello)	3,966
9. California, University of (Berkeley)	3,919
10.California, University of (Santa Cruz)	3,877

Of the 180 Outdoor Programs, these are the top ten ranked by Variety of Trips Offered

University	Count Of Activity
1. Colgate University (Hamilton, NY)	24
2. Calgary, University of (Alberta, Canada)	24
3. Lewis & Clark College (Portland, OR)	20
4. California State University (Chico)	18
5. Georgia State University (Atlanta)	16
6. Alaska, University of (Anchorage, AK)	15
7. Wisconsin, University of (Madison)	15
8. Idaho State University (Pocatello)	15
9. Indiana University (Bloomington)	14
10.California, University of (Santa Cruz)	14

Of the 180 Outdoor Programs, these are the top ten ranked by Percent of Trips per Student Enrolled

University	Trips/Enrollment	Students	SumOfTrips
1. Calgary, University of (Alberta, Canada)	67.27%	17,000	11,436
2. Sheldon Jackson College (Sitka, AK)	35.14%	350	123
3. U.S. Coast Guard Academy (New London, CT)	33.00%	100	33
4. Prescott College (Prescott, AZ)	14.59%	370	50
5. Oklahoma State University (Stillwater)	12.15%	18,000	2,187
6. Colorado Mountain College (Glenwood Springs)	12.00%	500	60
7. Montreat-Anderson College (Montreat, NC)	11.75%	400	47
8. Ferrum College (Ferrum, VA)	11.25%	1,200	135
9. Dartmouth College (Hanover, NH)	9.54%	5,000	477
10.Williams College (Williamstown, MA)	8.55%	2,000	171

Of the 180 Outdoor Programs, these are the top ten ranked by Acitivities with the most Participants

Activity	Sum Of Participants	Count Of Activity	SumOfTrips	Rank in 1990
1. Rafting	18,069	97	678	3
2. Ropes Course	17,052	28	1,287	10
3. Backpacking	14,557	138	1,290	1
4. Rock/Ice Climbing	13,335	112	1,387	7
5. Downhill Skiing	11,942	91	450	6
6. Canoeing	10,659	130	1,163	2
7. Climbing Wall	10,007	23	12,840	87
8. Cross-Country Skiing	8,568	99	736	4
9. Kayaking	8,482	65	962	2
10.Sailing	7,094	16	291	5

Rafting Participants

Of the 162 activities offered at university & college outdoor pregrams, this is the activity with the **greatest** number of participants, listing the top ten the top ten universities who offer this program.

University	Participants
1. Oregon, University of (Eugene)	3,375
2. California, University of (Davis)	2,566
3. Middle Tennessee State U. (Murfeesboro, TN)	2,500
4. Montana State University (Bozeman)	976
5. San Juan College (Farmington, NM)	852
6. Central Washington University (Ellensburg)	750
7. Western Carolina University (Cullowee, NC)	700
8. California, University of (Berkeley)	300
9. Washington State University (Pullman)	280
10.Eastern Montana College (Billings, MT)	256

Ropes Course Participants

Of the 162 activities offered at university & college outdoor pregrams, this is the activity with the **2nd** greatest number of participants, listing the top ten the top ten universities who offer this program.

University	Participants
1. Oklahoma State University (Stillwater)	4044
2. Colorado State University (Fort Collins)	4000
3. North Carolina, University of (Charlotte)	2243
4. Hartwick College (Oneonta, NY)	1207
5. Ferrum College (Ferrum, VA)	1200
6. Lynchburg College (Lynchburg, VA)	900
7. Iowa, University of (Iowa City)	520
8. East Carolina University (Greenville, NC)	474
9. North Carolina, University of (Wilmington)	450
10.Appalachian State University (Boone, NC)	300

Backpacking Participants

Of the 162 activities offered at university & college outdoor pregrams, this is the activity with the **3rd** greatest number of participants, listing the top ten the top ten universities who offer this program.

University	Participants
1. Dartmouth College (Hanover, NH)	3,000
2. Calgary, University of (Alberta, Canada)	735
3. Princeton University (Princeton, NJ)	432
4. Montreat-Anderson College (Montreat, NC)	400
5. California, University of (San Francisco)	400
6. New Hampshire, University of (Durham)	333
7. California, University of (Berkeley)	320
8. Marshall University (Huntington, WV)	300
9. California, University of (Santa Cruz)	280
10. California State University (Chico)	266

Year Outdoor Program was Founded

Of the 180 universities with outdoor programs, these are the first ten ranked by foundation date along with program name.

University	Program Founded	Program Name
1. Dartmouth College (Hanover, NH)	1911	Outdoor Programs
2. Williams College (Williamstown, MA)	1915	Williams Outing Club
3. Allegheny College (Meadville, PA)	1930	Allegheny Outing Club
4. Wisconsin, University of (Madison)	1931	The Wisconsin Hoofers
5. New York, State University of (Oneonta)	1955	Oneonta Outing Club
6. Florida, University of (Gainesville)	1955	Gator Outdoor Rec Program
7. Bowdoin College (Brunswick, ME)	1964	Bowdoin Outing Club
8. North Dakota State University (Fargo)	1965	Recreation & Outing Center
9. Emory University (Atlanta, GA)	1965	Outings Club
10. Lawrence University (Appleton, WI)	1967	Outdoor Recreation Club

*Copies of the book, from which this data was extracted, may be obtained by sending a check for $70.00 plus $5.00 shipping/handling to: David J Webb, 2384 West 800 North, Provo, Utah, 84601. Phone (801) 378-2166. E-mail address: david_webb@byu.edu

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The Value of Adventure

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Abstract

The adventure life style is not accepted by most. Those who live by it understand its value, and return from their adventures better able to deal with life.

I am a fanatic. A fanatic is one who holds his views with enthusiasm which varies directly with the amount of evidence bearing against them.

I will present you with a list of words which I want you to give the opposite of. Be creative in your response. Do not suggest a new prefix; that would be too easy.

Comfortable
Permanent
Predictable
Safe
Sterile
Routine
Sure thing
Familiar
Static
Control

If these lists each represented a type of lifestyle which would most people choose? Why do so many of us want to live this way?

Mark Jenkins, a modern day mountaineer, provides us with an excellent answer in an article written for Summit magazine, called *Why Men Climb Mountains*.

> "On a mountain, caught inside a welter of ambition and fear and struggle, you will eventually shove yourself right out on the ledge, climb right to the lip, and get a good long look into the abyss. In that look, all you see, all you know, all you can possibly feel is the absolute intensity of your own mortality. The sheer, inalienable certainty that, "HEY, I'M ALIVE!", This is exactly where the rest of life keeps you from going. This is exactly the confrontation modern man strives to elude. At all costs avoid it. Avoid being there. Stand back. Keep cool. Keep everything, including your own life at arms length. Keep the perspective "I like to watch." That's the right answer. Everyone is a spectator. The perfect passionless life. And that's it. That's what puts men on mountains. The fear more sick than the fear of failure, the fear of mediocrity. The excruciating fear of a life without passion."

How about that word, mediocrity. What does it mean? Which list would

that mediocrity under? It's opposite? What about the word boredom, which list would it be under?

The opposite of Boredom? ADVENTURE!

Bill Quinn, in an article entitled the *Essence of Adventure*, speaks of beginning, boldness, power, active involvement, of a quest, of human desire, of drive to experience that which is hidden and unknown. It was the concept of adventure that stimulated early man to discover and inhabit the world. The essence of adventure is a tremendously powerful inner desire for a something--a condition-- which is absent. It is a process that begins with the acceptance of a situation where you know you will need to call upon your own talents, abilities, skills, strengths, and courage, just to get through, not necessarily succeed, but just survive. How often do we allow ourselves to be in positions where we may need to call upon all of our talents, abilities, skills, strengths, and courage? Most of us not too often. Not often enough. We are too comfortable. I have a great poster of a climber standing on a summit with his arms outstretched with the sun setting behind him. Below the poster is a quote by T.S. Elliot. It says:

"Only those who will risk going too far can possibly find out how far they can go."

You can't find that out without calling upon all your talents, abilities, skills, strength, and courage.

Rick Ridgeway, a veteran Himalayan climber who has stood on the summits of the highest peaks of all seven continents, refers to adventure as

> "That elixir of youth, which can be a harsh mistress of age. You dream of your next expedition, but you wonder if your body is still strong enough, if you have the reserves to cover mistakes. Must I, you ask, live safely within my limits? The answer of course is no; you must push to those limits and further. How else will you know if you've grown old?" (Summit Fall 1990)

So what if you have grown old? Does it all have to end. I'm old and I hope it hasn't ended for me. Things have changed but the passion has not; it is perhaps even stronger. Think of the words of Tennyson in his poem "Ullysis"

> I am a part of all I have met;
> Yet all experience is an arch wherethrough
> Gleams that untraveled world whose margins fades
> Forever and forever when I move.
> How dull it is to pause, to make an end,
> To rust unfurnished, not to shine in use!
> ...Death closes all, but something ere the end

Some work of noble note may yet be done,
Not unbecoming men that strove with gods.
...Come, my friends,
This is not too late to seek a newer world.
Push off, and sitting well in order smite
The sounding furrows; for my purpose holds
To sail beyond the sunset, until I die.
Though much is taken, much abides; and though
We are not now that strength which in old days
Moved earth and heaven, that which we are, we are.
One equal temper of heroic hearts,
Made weak by time and fate, but strong in will
To strive, to seek, to find, and not to yield.

Is there value to this passion? Is there really a need for it? If not why are we here? Or should I say, "Why aren't we out there?" Perhaps this question can best be answered from a statement by a former client from a Yellowstone Institute canoe trip. This statement comes from a letter sent to me following the clients return from Yellowstone to their bank job in downtown Atlanta, Georgia.

> "Do you know where I'd really like to be now? What I'd like to be doing? It really makes no sense, you know---I want to be somewhere out in the open, where I can be very hungry, very tired -- mind and body worn out, from being called upon so actively to sense, feel, react, to try to comprehend how small I am relative to the place I am in -- small in a big way. I want to be cold, wet, tired, and completely overwhelmed in some beautiful place that looks as if no one has ever been there before. Undiluted awe, the feeling of powerlessness over everything except my mind, and arms, and legs, fingers and toes; that essence of life makes my soul open up, and know something more about what God hoped us to be. Isn't it amazing, but so appropriate, that the only place we can be truly godlike, really worshipful, our minds and hearts most open, is the place out of which civilization strives to evolve? We want so desperately to control; when the place we have the least control teaches us the most about the best we can be."

Dan Dustin, a professor of Recreation at San Diego State University in a paper entitled *Toward a Higher State of Being*, addressed this concept of becoming ones best self:

> "We human beings area curious mix indeed. We are either disappointing ourselves or surprising ourselves. Grounded in the here and now, struggling with an imperfect world, struggling with our imperfect selves, we soar away from time to time to experience the promise of a more perfect world and a more perfect self. What we transcend from is to what ought to be. We turn what ought to be into what is. It is our ability to pull this off once in a while that gives us hope for the future."

I find it interesting that most all mountaineers, most all adventurers, when they discuss the value of their pursuits, perhaps in an effort to justify themselves, will always emphasize the personal growth and development that accompanies adventure. Following are some examples of this:

"Mountains can unlock both the best and the worst in man. Within them he can realize his finest attributes: courage, commitment, adaptability, imagination, and selflessness. Or, he can become a smaller, meaner, and more selfish version of himself. Their height and purity, removed from the world, the ritual and challenge of a journey across their slopes, create a rite of passage all but absent in modern life. The return afterward, the death and rebirth, makes our vision of home and peace more concrete, more valued than before." Chris Noble.

"Over and above all else, the story of mountaineering is a story of faith and affirmation...that the high road is the good road; that there are still those among us who are willing to struggle and suffer greatly for wholly ideal ends; that security is not the be all and end all of living; there are conquests to be won in the world other than over our fellowman. The climbing of earths height, in itself, means little. That men and women want to try to climb them means everything. For it is the ultimate wisdom of the mountains that man is never so much a man as when he is striving for what is beyond his grasp, and that there is no battle worth the winning save that against our own [illegible]" HIGH CONQUEST

"I believe that no man can be completely able to summon all his strength, all his will, all his energy, for the last desperate move, till he is convinced the last bridge is down behind him and there is no where to go but on." Henrich Harrer

"When I am on the mountain I often feel almost invincible. It is not any feeling of immortality, but simply a feeling that nothing bad is going to happen to me there -- even if I die on it. Its a feeling I have of belonging, of being in a place where I might have come from, or where I am going; one that makes no demands on me other than I should exert to deserve it, and I should be curious to understand it as something God must have made."
Jim Klobechar

"Real mountaineering is above all a reason for struggle and for self-conquest, for spiritual tempering and enjoyment in the ideal and magnificent surroundings of the mountains. The trials, the hardships, the privations with which an ascent of the peaks is always studded, become, for that very reason, valid tests which the mountaineer accepts to temper his powers and his character. In the atmosphere of struggle, of close relationship with the unforseen difficulties and the thousand perils of the mountains, the alpinist is shown in his true colors, ruthlessly laid bare, both in his qualities and in his defects, to himself and others. That alone, in my opinion, should be sufficient to convince anyone that the mountains can be for the climber the source of the most

> beautiful and exalted sentiments and the supreme test which contribute to the perfecting of certain qualities which are at the root of progress. Walter Bonatti, ON THE HEIGHTS

Along with the emphasis on personal growth and development there seems to be a underlying notion that through the mountain experience or through adventure one has the opportunity to come closer to some realization of the sacred or the holy and how it influences them. It appears that adventure prepares us to more fully recognize and appreciate our own spirituality. In a talk entitled *Spiritual Values of Wilderness* (where the next portion of this comes from) given to Outward Bound group, Willi Unsoeld discusses the struggle we often have with this concept of the sacred. A reason for the struggle is that the sacred, the holy, the spiritual, the religious, whatever term we choose, is difficult to define. Unsoeld offered some definitions to help us understand.

> Einstein: What a man does with his solitude.
> Paul Tilics: Man's ultimate concern. What concerns him most.
> Willi Unsoeld: That anchor that secures us to life, that keeps things going - that makes sense when nothing else does. It gives meaning where none was before.

Unsoeld refers to a book by Rudolph Otto called, The Idea of the Holy, where Otto coins a new term for sacred. The term is numinous. According to Unsoeld numinous is the dimension of human experience that consists of a MYSTERIUM, TREMENDUM, ETPHOSINOSINS. These are Latin terms. Mysterium is the mystery of the sacred. Unsoeld says there has never been anything sacred that lacks mystery, or a hiddenness beyond which you cannot go. In the context of mountaineering you ask yourself "Will it go? Will it?"

" Well, I don't know."

"What are you doing here if you don't know?"

"That's the mystery - I've got to find out."

Tremendum is raw power. The sacred has never been anything but power. Don't mess with it. Aligned with this power is a certain fear - the fear of being nullified by the overpowerfullness of the sacred - or in our case the overwhelmingness of the mountains. Can we really be in charge in the midst of this type of power? Can we really come out as one who has conquered? In the wilderness, in a real setting for adventure, there is the sense of overwhelming power against which you don't measure yourself - because there are no calibrations small enough to even notice you.

Etphosinosins is the attraction or fascination with the sacred, with the beauty, the solitude. It is the feeling of at oneness, or at being at home in the wilderness. It answers the question "So why do you climb? Why do you want adventure?" Because you are the kind of joker who really digs it. The cornices and the ice walls and the deep snow and the frozen surfaces and the rock buttress and the sweep of the ridge - this is home - and your not there out of a masochistic desire to grind yourself to the core. But that is where you come alive and move and have your being there. There appears a vision of unity, of being identical with, a loss of a sense of self, where you personally disappear.

What comes next is a sense of totality, a sense of awe, a sense of joy. Its great! Deep down to the very core, beyond question, beyond analysis, beyond words, its great! But you can't stay out there forever. You ask yourself "Why did I let go? Why did I leave and come back to the city?" Because that isn't where it's at! Where it is at, is where you are from. The final test is, does your experience with the sacred enable you to cope more effectively with the problems of man? If you have not learned something from your adventure, it has failed. You go to the wilderness to have an adventure with the sacred. The outdoors is not the only place where one can go, but in the context we are in, it is the one that seems to be emphasized. We go there to reestablish our contact with the core of things, where it is really at, in order to come back into the world of man to operate more effectively. This is the right of passage Chris Noble was referring to that is "all but absent on modern life...that makes our vision of home and peace more concrete, more valued than before."

Now here is an attempt to put this all together. An attempt through the use of a story. Every year I take a group of about 12 Ricks College students down into the Canyonlands area for a three week trip called Summit. We bike and hike and run one of the rivers in the area. On the very first Summit trip that I supervised for the Recreation Department, we spent three days in the primitive area of Arches National Park. The second day I allowed the students to go off and explore the area to become familiar with it. That afternoon one of the boys came back to camp excited saying he had discovered a cave. He wanted to take us there, so we followed him. It was in a remote place where you have to do a friction type climb to get up to it. It was not so much a cave as it was a very narrow canyon with one side leaning onto the other, with

a thin crack running between. The entrance was completely covered with bushes so no one would ever guess the cave was there. The cave was small, maybe fifteen feet long and ten feet wide. There were two very distinct piles of sand in the cave. Two girls, Suzie Francis and Shelly Hagmann, two of the greatest people on the trip decided to bury themselves in one of the piles of sand. These two girls had come to me earlier on the trip and told me they had a goal. Their goal was to treat everyone on the trip the way Christ would treat them. It was a very humble desire on their part. They were joyful girls, who were constantly afraid of wetting their pants due to laughter. Burying themselves in the sand was consistent with their playful personalities. When we were ready to leave, the two of them got up and we all went back to camp.

That summer (89) I got to know Suzie better. She worked on campus and I would see her regularly. I also got to know her family well. On the first Sunday of October that year, Suzie and another girl from Rexburg were involved in a terrible car accident. Suzie's friend was killed on impact, and Suzie was taken to the hospital in Idaho Falls and placed into intensive care. I went to the hospital Monday morning and spoke with her parents, Mike and Dianne. The doctors had given little hope of her recovery. On Wednesday night I went back to the hospital to visit. Dianne asked if I would like to go into Suzie's room to see her. I said yes. Mike and I went in. Suzie was laying on a bed of ice to keep her temperature down. She had gained nearly 80 pounds because of all the fluids they had pumped into her. She was nearly undistinguishable. It was difficult to be there. I spoke to her and held her hand. Soon the doctors said we should leave. In the waiting room, Dianne asked if I had spoken to Suzie. I said "yes" then was asked if Suzie had responded. I said no. "Did she move anything" Dianne asked. I thought and remembered seeing her left foot move a little, and told Dianne so. With a smile she said that Suzie knew I was there, because that was the only part of her body she could move. I felt good knowing that Suzie knew I had been there to see her. I went home, got into bed and the phone rang. It was Mike. Apparently, just one hour after I left the hospital, Suzie's strength ran out and she passed away. I told my wife that I had a feeling I would be asked to speak at Suzie's funeral. The next morning the call came from Mike to ask me to speak. I was about fifteen minutes away from leaving on a three day backpacking trip into Yellowstone. I, of course, said I would speak, but that

I wouldn't be back from the trip until Saturday at noon. Mike said the funeral would be at one o'clock. I went to my office that morning and gathered all the students journals I had kept from Suzie's Summit trip, I gave them to the secretary and asked her to read them all and extract from them everything about Suzie. There were many students who wrote about Suzie and her influence on them. I used these statements for my talk, along with my own feelings. Giving this talk was one of the hardest things I had ever done.

Like Suzie's family I went on with my life. You don't forget. You just move on. I planned the next years Summit trip. We again went into Arches and camped. I remembered the cave we had visited the year before and decided to take the group to it. We climbed up to the bushes in front of the cave and walked in. I went in first. When my eyes adjusted I saw something that nearly dropped me to the ground. I saw the imprints of Suzie and Shelly from the year before, as though they had just got up from the sand. I stopped, and made everyone else stop. The students looked at me, asked why I had stopped, then asked why I was crying. I couldn't talk at first. I finally gained my composure, then told Suzie's story. I did not know this, but six of Suzie's good friends were on this trip. We had a group cry session, and each shared their own personal Suzie story.

When we left the park the next day I made a call to Suzie's family and nearly demanded that they come to Arches immediately so I could take them to the cave. They could not come at the time. I believe they had to have some more time to heal, some more space. Four years later I finally got them into the cave. Mike and I cried. Dianne didn't. Dianne then told us about her experiences with Suzie the month before her death. Suzie had gone to her mother and told her that something was up, something was going to happen to her that would take her away. Mike and I had not known about that, but wished we would have.

So how does this relate to adventure? Good question. It's deep. You need to think hard. With the help of a dear friend I found the relationship. In a book by Barry Lopez called <u>Crossing Open Ground</u>, there is a chapter entitled *Landscape and Narrative*. In it, Lopez writes:

> "Within certain stories, certain individuals may experience a deeper, more profound sense of well being. It results from bringing two landscapes together."

Previous to this he had written about the internal landscape, which is

what is inside of the individual. He discussed the Navajo Indian ceremony called Beautyway. Beautyway is an personal invocation where a person makes the effort to find within their own life that same order and balance that exists in nature. The person becomes a reflection of the myriad enduring relationships of the landscape.

> "The exterior landscape is organized according to principles or laws beyond human control. It is understood to contain an integrity that is beyond human analysis."

We can't explain it. Scientifically we can, but inside we can't. Like Unsoeld said, it is beyond words and beyond analysis. Lopez continues:

> "Insofar as the storyteller depicts various subtle and obvious relationships in the exterior landscape accurately in his story, and insofar as he orders them along traditional lines of meaning to create the narrative, the narrative will ring true. The listener who takes the story to heart will feel a pervasive sense of congruence within himself and also with the world."

With this relationship in mind we will go back to Suzie. She made a bold statement of a goal to be like Christ. She made an imprint of herself, of who she was and where she had been; an interior imprint that was left on me, and an exterior imprint left in the sand in the cave. This imprint, both physical and emotional was made and left for those who knew her and for those who didn't know her, but who will feel of her imprint for years to come. The imprint was left in hopes that at some point in their lives, our lives, we would realize who she was, and then attempt in our own way to be like her, and in turn leave our own imprint for others. That is what it is all about. It is being able to come back from having a truly fantastic experience and making your life and others better. That is the ultimate value of adventure.

To conclude:

> "Those who succeed and do not push on to greater chances of failure are the spiritual middle classers. Their stopping at success is proof of their compromising insignificance. Only through the unattainable does man achieve a hope worth living and dying for." Eugene O'Neill.

> "You cannot stay on the summit forever; you have to come down again. So why bother in the first place? Just this; what is above knows what is below, but what is below does not know what is above. One climbs, one see, one descends, one sees no longer, BUT ONE HAS SEEN." That is why we go out there.

Group Dynamics and Initiative Activities with Outdoor Programs
10th International Conference on Outdoor Recreation - Nov. 7-9, 1996

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Abstract:

Research shows that members of cohesive groups rate their group experience as more enjoyable, less stressful, and more productive. This paper focuses on group dynamics and introduces the use of initiative activities as a means of facilitating a more cohesive group experience. Specific topics include curative factors of groups, group development, group levels, and group roles. Icebreaker and communication activities are also discussed.

Groups are an essential part of all outdoor programs and outdoor experiences. Outdoor programs are comprised of a variety of groups including full-time and part-time staff, instructors, trip leaders, support personnel, and customers/participants. If these groups cease to exist, so do outdoor programs. Thus, it only makes sense to ensure the survival of groups by enhancing the group experience. Research shows that cohesive groups are associated with high levels of enjoyment, satisfaction, and productivity (Forsyth, 1990). Facilitating group cohesion is, therefore, an excellent way to enhance the group experience. Improving personal leadership skills and increasing a leader's awareness of group dynamics are methods of addressing group cohesion. Focusing solely on leadership ignores the contributions and importance of group members. Thus, this paper will focus on increasing knowledge of group dynamics and the utilization of initiative activities within the group in order to facilitate a sense of cohesion among group members.

Group Dynamics

Group dynamics involves the interaction of group members and group leaders. According to Benne and Sheats (1948), "The functions to be performed both in building and maintaining group-centered activity . . . are primarily member roles. Leadership functions can be defined in terms of facilitating

identification, acceptance, development and allocation of these group-required roles by the group" (p. 42). In other words, members are partially responsible for the outcome of their experience and leaders should help facilitate this acceptance of responsibility. Thus, it is extremely important for group leaders to be aware of the dynamics within a group. Several forces are at work within groups including curative factors, stages of group development, group levels, and group roles.

Curative Factors of Groups. Humans are committed to a social existence and are, therefore, intimately involved in social interactions. People affiliate in order to receive benefits of group membership. Yalom (1985) developed ten curative factors of groups to help explain the "intricate interplay of various guided human experiences" (p. 3). These factors operate in every type of group but can be experienced differently by each group member. Experiencing these factors as a result of group membership can help each group member draw meaning and enjoyment from the experience. By encouraging these factors to emerge, group leaders increase the chances of a positive group experience. Six of these factors are described below.

1. Universality: Connections with others, common concerns and problems.
2. Didactic Learning: Information giving, sharing knowledge.
3. Altruism: helping others, can raise one's self esteem.
4. Socialization: benefits from interactions with others.
5. Peer Learning: people often learn better from one another.
6. Group Cohesiveness: acceptance from others, belonging, support.

Stages of Group Formation. Groups go through four stages of development: forming, storming, norming, and performing (Vreeken, 1990, Murk, 1994, Turner, 1977). These stages are sequential; however, groups may regress to a previous stage or show characteristics of more than one stage at the same time. These stages are described below.

Group Stage	Characteristics
Forming (Orientation)	look for belonging and acceptance unsure of group interactions & behavior polite discourse tentative interactions beginning self-disclosure
Storming (Conflict)	power struggles and conflict attempt to establish a pecking order coalition formation
Norming (Cohesion)	feeling of "groupness" and "we-ness" unity, stability, and satisfaction effective communication
Performing (Performance)	decision making and problem solving mutual cooperation potential for high productivity

A general understanding of group development is important for many reasons. First of all, the role of leader changes with each stage. While in the forming stage, group members expect more direction, facilitation, and verbal interaction from a leader. In storming, we may need to draw upon our vast experience to recognize problems, hostile feelings, emerging coalitions, and active conflict. Members may be able to work through these issues for themselves; however, the leader may also need to intervene. In norming and performing, groups become more active and involved, thus requiring less control and direction by the leader. Complaints regarding leadership may very well stem from actions inappropriate to the group's stage of development.

When an outdoor experience ends, participants' attitudes vary depending upon the groups' stage of development. If the group is in conflict, participants are likely to feel frustrated and distant. Evaluations will reflect this negativity. If an experience ends while the group is in norming, group members experience a heightened sense of "groupness". This leads to a positive attitude towards the group and the outdoor experience as a whole. When the trip is successful, the agency benefits through positive evaluations and word-of-mouth advertising.

Group Levels. Groups operate at three different levels; group task level, group maintenance level, and individual level (Murk, 1994). Task level refers to what a group is trying to accomplish. It is its mission or purpose.

Some examples may include a corporate task force, an environmental clean-up event, or a skill-building workshop. Group maintenance level involves relationships and interactions between the members. This has also been referred to as the "social climate", feel, and sensitivity of the group (Corey & Corey, 1992). The individual level involves the particular needs and characteristics of each member. Individual needs can lead group members to carry out roles that enhance either task or maintenance functions.

Group Roles. Roles have a tendency to emerge in all groups and correspond to task or maintenance levels. Task roles serve to keep the group functioning with regard to their purpose and goals. Maintenance roles enhance morale and strengthen the group. Other roles combine both task and maintenance functions. Roles that members play often correspond to their personality; however, some emerge as a result of group needs. All roles are necessary if the group is to be productive, cohesive and satisfying. In fact, research demonstrates that the mere act of assuming a role is associated with increased feelings of cohesiveness (Mudrack & Farrell, 1995). Group roles are described below.

Task Roles (Turner, 1977):

1. Initiating Activity: proposing solutions, suggesting new ideas, new definitions of the problem or new organization of material.
2. Seeking Information: asking for clarification of suggestions, requesting new or additional information or facts.
3. Seeking Opinion(s): looking for an expression of feeling about something from the members, seeking clarification of values, suggestions, or ideas.
4. Giving Information: offering facts or generalizations, relating one's own experience to the group problem under discussion to illustrate a point.
5. Giving Opinions: stating an opinion or belief concerning an offered suggestion.

6. Elaborating: clarifying, giving examples or developing meaning, trying to envision how a proposed idea might work if adopted/adapted.

7. Coordinating: showing relationships among various ideas or suggestions, trying to pull ideas and suggestions together, trying to draw together activities of various subgroups or members.

8. Summarizing: pulling together related ideas or suggestions, restating the suggestions raised after the group has thoroughly discussed them. (p. 11)

Maintenance Roles (Murk,1994):

1. Encouraging: being friendly, warm and responsive to others; accepting others and their contributions, rewarding others by giving them an opportunity, a choice, or an important recognition.

2. Expressing Group Feelings: sensing feelings, moods, relationships within the group; sharing his/her own feelings or effects with/on other members.

3. Harmonizing: attempting to reconcile disagreements, reducing tensions, getting people to explore their differences.

4. Compromising: when his/her own idea(s) or status is involved in a conflict, offering to compromise his/her own position, admitting errors, disciplining oneself to maintain group cohesion.

5. Gate-keeping: attempting to keep communication channels open, facilitating the participation of others, and suggesting procedures for sharing opportunities for discussing group problems. (p. 6-7)

Task and Maintenance Roles Combined (Phipps,1984):

1. Evaluating: submitting group decisions or accomplishments to compare with group standards, measuring accomplishments against goals.

2. Diagnosing: determining sources of difficulties, appropriate steps to take next, analyzing the main blocks to program.

3. Testing for consensus: tentatively asking for group opinions in order to find out if the group is reaching consensus.

4. Mediating: harmonizing, conciliating differences in points of view, making compromise solutions.

5. Relieving tensions: draining off negative feeling by joking or pouring oil on troubled waters, putting tense situations in a wider context. (p. 182)

The above mentioned roles all serve to build a better group. These constructive roles help maintain positive relationships and accomplish the determined goals. However, there are also destructive roles that serve to inhibit group functioning. Emergence of these roles may indicate that there are issues that need resolving or that a member has needs that are overridden. Murk (1994) defines some destructive roles as follows:

1. Aggression: deflating the status of others, expressing disapproval of the values or attitudes others hold, attacking the group of the problem it is working on, joking in a "barbed" way.

2. Blocking: impeding the movement of the group for personal reasons reflected by such behaviors as: disagreeing unreasonably, resisting stubbornly, repeatedly bringing up subjects the group has rejected or disposed of. Arguing too much on a point and rejecting ideas without consideration.

3. Dominating: trying to assert authority or superiority by manipulating the group or certain members of the group, controlling by means of flattery or other forms of patronizing behavior, and asserting a superior status and often interrupting the contributions of others.

4. Out-of-Field Behavior: making a display of one's lack of involvement; the "I couldn't care less" performance.

5. Special Interest: using the group to promote extraneous interests, solicitations, and special self-interest projects.

6. Horsing Around: always clowning, joking, mimicking, disrupting the work of the group.

7. Withdrawal: acting indifferent, resorting to excessive formalities, daydreaming, whispering to others, wandering from the subject. (p. 8)

The benefits of role recognition are many. Informal leaders emerge through role behavior. Knowing where the power lies is invaluable. Also, situations arise that require task and maintenance behavior. Leaders need to know who to call upon. Finally, roles can indicate underlying issues in need of attention. Destructive roles may indicate conflict or dissatisfaction. The way these issues are handled will make the difference between a positive or negative outcome.

Initiative Activities

Most people associate initiative activities with Ropes Courses. Proper use of initiative activities facilitates increased communication, problem-solving, teamwork, and trust. The process involves setting up an activity scenario specifically designed for the group, having the group engage in the activity, and then debriefing the experience. Depending upon the desired goals, the process can be used formally for maximized effect or informally for the experience.

Initiative activities can accelerate or decelerate the group development process. As discussed previously, a group in the norming stage experiences a sense of "groupness" and cohesion. Thus, if outdoor leaders accelerate a group through the forming and storming stages into norming, the probability of an enjoyable group experience is increased.

The purpose of outdoor trips or workshops is not to teach group dynamics and initiative activities; thus, it is not appropriate to utilize these activities throughout the outdoor experience. However, employing selected activities at the beginning of the group experience serves as an excellent warm-up and even achieves a little "preventative maintenance". Activities of particular importance are icebreaker and communication exercises. See the Appendix for activity examples.

Icebreaker activities are used to help members of a group learn others' names and to get acquainted. As the name implies, they also help "break the ice" so that group members feel more open to one another. An open and relaxed atmosphere allows a free exchange of information. This sets the stage for improved communication. Examples of icebreaker activities include name games, identity cards, personal trait lists, etc.

Group members become aware of their communication styles through the use of communication initiatives. This is particularly helpful when teamwork is essential for a successful experience. Poor communication and lack of information sharing leads to decreased ability to accomplish tasks (e.g., trip planning, route selection, camp maintenance activities, etc.). Initiative exercises encourage them to give and receive information, pool their resources, and practice good communication techniques. A variety of activities exist that focus on communication. Some particularly useful ones make use of blindfolds in order to help participants focus on verbal interactions. Other activities disallow participants to talk, thus forcing them to explore other methods of communication.

Conclusion

The focus of this paper was to increase knowledge of group dynamics and the utilization of initiative activities in order to facilitate a sense of cohesion among group members. The outdoor experience and group experience are interdependent. By enhancing the group experience, the probability of a successful outdoor experience is heightened. Using initiative activities within the group process can assist groups to achieve group cohesion. Activities of particular importance are icebreaker and communication exercises. By utilizing these activities at the beginning of the group experience, the group may be able to progress through forming and storming more quickly. The ultimate goal of implementing initiative activities and knowledge of group dynamics is to facilitate a positive group experience.

Appendix

Activity	Brief Description
Name Game	Participants stand in a circle. Each person should think of a dance for themselves. First person says "My name is _____ and I dance like (do dance). Next person repeats the person in front of them and then does his/her own dance, etc.
Identity Cards	Participants get a 4x6 card. They put their name in the middle. In each corner they should be instructed to put traits, favorite activities, favorite person, etc. Each member then takes turns explaining his/her card.
Trait Pictures	Using clip art or magazine pictures, etc., a variety of images should be placed in the middle of the group. Each person selects images that represents his/her personality traits, a favorite place, favorite activity, etc. Members take turns showing and explaining images.
Blindfolded Triangle	Participants are blindfolded and have their hand placed on a rope. They are instructed to form a triangle out of the rope. They cannot slide along rope.
Blindfolded/Mute Number Line-up	Participants are blindfolded, instructed not to talk, and then given a number. They must then line up by number from lowest to highest. The key is to find an alternative method of communicating their numbers to each other.
Mute Acid River Crossing	Participants are given three boards and must use them to get from one platform to another (usually 2-4 platforms). They are instructed not to use verbal communication methods.

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Conference Schedule,

Programs,

Workshops

and

Presenter

Biographies

General Conference Information

Thursday, November 7th:

Registration, Check-In & Breakfast:	7:30 am- - 9:30am	Union Ballroom
Welcome & Kick-off:	9:30 am--10:15am	Union Ballroom
Break out Sessions:	10:30am--12:00pm	See Schedule
Lunch recess:	12:00pm- -1:30 pm	
Break out Sessions:	1:30 pm- -5:00 pm	See Schedule
Dinner & Keynote Speaker:	6:30 pm- -9:00 pm	Union Ballroom
Social sponsored by NOLS	9:00 pm--11:00pm	University Park Hotel

Friday, November 8th:

Break out Sessions:	9:00 am--12:00pm	See Schedule
Lunch with our Vendors:	12:00pm- -1:45 pm	Union Ballroom
Break out Sessions:	2:00 pm- -5:30 pm	See Schedule
Dinner recess:	5:30 pm- -7:45 pm	
Conrad Anker Presentation:	8:00 pm--10:00pm	OSH Auditorium

Saturday, November 9th:

Break out Sessions:	9:00 am- -1:15 pm	See Schedule
Closing Luncheon & Presentation:	1:30 pm- -4:00 pm	Union Ballroom

Special Saturday Bonus: If your plane does not leave until Sunday morning, why not spend Saturday evening with Doug Peacock and special guest folk singer Beth McIntosh? $10.00 Requested Donation in the Orson Spencer Hall Auditorium, showtime 8:00 pm.

Auction to Support the American Whitewater Affiliation

During Conrad's slide presentation we will host a fun, but real, auction to support the American Whitewater Affiliation (AWA). Our emcee for the evening will be our own James H. Moss. Since many of our programs use the rivers of North America so we thought AWA could use our help. Their mission is to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. Please join us in supporting this worthwhile non-profit organization.

We have some great products donated by our vendors and local businesses including Patagonia, Black Diamond Equipment, Voile Equipment, Vortex Packs, Pur, Quest, Spiderco, Nike, Mountain Smith, CamelBack and many others. Don't miss this chance to pick up a wonderful product for a great price while supporting the AWA's conservation and education efforts.

Copy, Fax and Computer Service

Should you find a need to make a few copies or send / receive a fax, just check with a conference host or volunteer. A copy machine will be provided at the conference site to ensure you can get that extra copy you need for your presentation. The Outdoor Recreation Program will allow use of their fax machine. The Computer Service department has made the Union computer lab available to all conference participants. If you need to check your e-mail, log on to the net to get the weather report back home or use a word processor, the computer lab in the Union is available for you Monday -- Saturday from 8:00 am -- 6:00 pm. If you have any questions about these services just see a conference host!

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10th ICORE Presentations

SESSION 1: Thursday November 7th, 10:30 am--12:00 noon

-Managing Staff Turnover in Outdoor Recreation: Limiting Staff Turnover Through Job Satisfaction and Commitment ***West Ballroom***

Human Resources are a vital element in outdoor recreation. The recreation programmer or manager can limit turnover by being aware of job satisfaction, job commitment and intention to separate. Presented by Colleen Swagar of the University of Calgary.

-Benefits Based Management (BBM) Approach to Outdoor Recreation Programming ***Collegiate Room***

BBM involves the identification of explicit program objectives, the development of prescriptive opportunities and the evaluation of explicitly defined outputs/products or consequences. This session will address the steps to plan, implement and evaluate this system. Presented by Bob Brookover and Rick Harwell of Clemson University.

-University Program Structure and Federal Land Access ***Den***

This workshop will look at the various University program structures and how each structure is viewed by federal land managers in terms of access, permits and other regulations. Presented by James H. Moss, Attorney at Law.

-Case Studies in Wilderness Medicine ***Panorama Room East***

This workshop will explore current issues in wilderness medicine through the use of case studies. Emphasis will be placed on evacuation decision making. Presented by Shana Lee Tarter of the Wilderness Medicine Institute.

-Feedback: The Underutilized Process Skill ***Parlor A***

Often feedback is misunderstood, underutilized or not helpful. This session will address appropriate feedback, when best to provide it, how feedback can be helpful and how to receive feedback. Presented by Dr. Chris Cashel of Oklahoma State University.

-Use of Initiatives and Group Dynamics with Outdoor Programs ***Saltair Room***

Leadership awareness of group dynamics. By becoming aware of the stages of groups and the subtle dynamics which occur, a group leader can be more affective in facilitating an experience. Presented by Lynn Zwaagstra of the University of Utah.

SESSION 2: Thursday November 7th, 1:30 pm--3:00 pm

-Select, Train, and Maintain: An On-going Process for your Ropes Course Staff ***Room 324***

This interactive workshop is designed for students and staff interested in developing ropes course facilitators in a college or university setting. Presented by Dave Klim and Jim Wall of Georgia College and State University.

-Outdoor Program Staff Exchange (OPSE) ***West Ballroom***

Sharing the best ideas in the field on equipment, programs, soft skills, etc. Possible links or exchanges between programs could be arranged. Presented by Tim Thomas of Ft. Lewis College.

-Actual and Perceived Risks: Implications of Teaching Judgement & Decision-making ***Den***

Teaching good sense requires teaching an accurate perception of risks; requires that leaders be aware of and adjust for the ways beginners perceive risks differently from experienced participants rather than relying on common sense. Presented by Steven P. Guthrie of Unity College in Maine.

SESSION 2: Thursday November 7th, 1:30 pm--3:00 pm (Continued)

-Women in Wilderness: Getting Women into the Outdoors ***Parlor A***
Participate in this discussion of adventure activities designed to empower women and enhance confidence, leadership, and environmental and self-awareness. Presented by Christy Vollbracht and Cheryl Berger of the University of Florida Travel and Recreation Program (TRiP).

-Federal Land Access Round Table Discussion ***Saltair Room***
Officials from the National Park Service, The Bureau of Land Management and The National Forest Service will join in a discussion of the federal policies governing use of federal lands by non-profit recreational programs. Session will be facilitated by Mike Beiser of the University of Idaho.

SESSION 3: Thursday November 7th, 3:30 pm--5:00 pm

-No Trace and Safety Information: Is the Message in the Medium? ***Room 324***
This presentation will examine the communication (or lack) of no trace and safety messages for several activities, in a variety of media. Techniques to improve future communication of the Leave No Trace ideal will be covered. Presented by Michael G. Huffman of the University of Memphis.

-Risk Management for Guides ***West Ballroom***
Previous sessions on risk management have focused on the protection of the operator from the operator's perspective. This workshop looks at risk management from a guide's perspective and is designed to show how to protect the guide and the operator. Presented by Ross Cloutier of the University College of the Cariboo.

-Will the Real Eco-Educator Please Stand Up? ***Collegiate Room***
In this session Janet will cover outdoor programs and their programming and the long term effects on the environment and public policy through their high visibility on public lands. Presented by Janet Ross of the Four Corners School of Outdoor Education.

-Redesigning a Club Structure for the 90's ***Den***
This session will provide an overview of the restructuring process addressing problems and concerns with implementation of a volunteer structure in your outing program. Advantages and disadvantages of this type of structure will also be addressed. Presented by Kurt Merrill of Pennsylvania State University.

-Wilderness Therapy ***Parlor A***
This workshop will address the therapy of using the wilderness as clarity and therapy in an individual's life. An exchange of ideas and personal experiences will be useful. Presented by Mark Reynolds of Mid America Bible College/ Wilderness Expeditions International.

-Federal Land Access Round Table Discussion (Continued) ***Saltair Room***

SESSION 4: Friday November 8th, 9:00 am--10:30 am

-Programming for Girls, Women & Older Adults ***Room 324***
This session will be a discussion on programs for girls, women and older adults. Topics include promotions, logistics, problems to be avoided, and how to set up new programs. Presented by Jacqueline Hutchison of the University of Alberta.

SESSION 4: Friday November 8th, 9:00 am--10:30 am (Continued)

-Leadership: Back to the Basics: Attila the Hun, Lincoln, Sitting Bull, Oh No! ***West Ballroom***
Compares leadership styles of these three leaders and includes lessons from their example to relate to your own style of leadership. Be prepared to play and to take a meaningful look at what it is like for your participants to have you as their leader! Presented by Jay Zarr of the University of Southern Colorado.

-University Outdoor Programs: State of the Art 1996 ***Collegiate Room***
This presentation will present findings on an international survey of college and university programs made in 1996. Current findings will be compared with findings from an earlier survey which was examined in 1990 at the 4th ICORE. This information can motivate and illustrate by providing examples of existing programs. Presented by David J. Webb of Brigham Young University.

-Path of the Professional ***Den***
Round table discussion involving a diverse group of protessionals and students; a question & answer session in which students can get direction and suggestions from current professionals in the field. Presented by Russell Parks of Miami University.

-The Value of Adventure ***Panorama Room East***
This workshop addresses the value of adventure. Adventure provides a type of rite of passage experience where an individual learns or realizes what he / she can and ought to be, as opposed to what he / she is. Presented by Scott F. Wood of Ricks College.

-The Psychology of Judgement for Outdoor Leaders ***Parlor A***
Judgment from the cognitive psychology point of view, dealing with cognitive traps in the outdoors. Presented by Ken Clement, John Currant, Tom Sanders, and Ken Henry of Colorado Mountain College.

SESSION 5: Friday November 8th, 11:00 am--12:00 noon

-AORE Student Meeting ***Saltair Room***
All student members of the Association of Outdoor Recreation and Education should plan to attend.

-Practical Approaches to Teaching LNT ***West Ballroom***
This program introduces a variety of strategies and effective approaches for teaching the principles and practices of the Leave No Trace program. Presented by Aram Attarian of North Carolina State University.

-Basic Outdoor Recreation Program Liability ***Collegiate Room***
This workshop will focus on the basics of recreation defense issues and will cover the use of various legal forms including, Assumption of Risk, Waiver, Release and Covenant Not to Sue. Presented by James H. Moss, Attorney at Law.

-The Art of Teaching Map and Compass ***Den***
One of the most basic skills in our field is often glossed over or clumsily taught. Instructional techniques including helpful teaching techniques, skill acquisition, and field exercises which will be discussed along with the pros and cons of the GPS systems now hitting the market. Presented by Ron Watters of Idaho State University.

-Women in the Woods: Three Women's Experience on the Colorado Trail ***Panorama Room East***
This presentation examines three women's 470 mile, 48 day strenuous trek across the Colorado Rockies, and people's reactions to them throughout their journey. Presented by Briget Tyson of the University of New Mexico.

SESSION 5: Friday November 8th, 11:00 am--12:00 noon (Continued)

-Customer Service: Beyond the Rocks and Rivers- Some Keys to Continued Success ***Parlor A***
The outdoor recreation industry shares a basic function for success with the hospitality industry. We can learn much from the hospitality Customer Service model. This workshop will explore the most useful common ground of both professions. Presented by David Holmes of the University of Nevada at Las Vegas.

SESSION 6: Friday November 8th, 2:00 pm-- 3:00 pm

-Beyond Sea Kayaking: The Future of Eco-tourism in Baja California ***Room 324***
This session will provide a current status report of the direction the Mexican government and the State governments of Baja (Norte & Sur) are taking in regards to both encouraging and controlling Eco-tourism in Baja. We will also look at the potential for moving beyond sea kayaking to include other activities in the region. Presented by Jim Lustig of San Diego State University & Francisco Detrell, Director of Expediciones Ecotur based in Ensenada, Mexico.

-UIAGM Rope Handling Techniques ***West Ballroom***
Lecture. What is the UIAGM, where does the AMGA fit in, standard anchor systems, guide belays, hauling systems, crevasse rescue, client rescue and lowering systems are discussed. Slides and overheads are used. Presented by Ross Cloutier of the University College of the Cariboo.

-Update in Outdoor Recreation Law for 1996 ***Collegiate Room***
This presentation will focus on what has happened in outdoor recreation law in 1996. Not only will the changes be identified, but different approaches to deal with them will be addressed. Presented by James H. Moss, Attorney at Law.

-Effective Risk Management Plans That Accommodate Staff Turnover ***Panorama Room East***
Demonstrates the three part Hazard Assessment and Management Worksheet and the Hazard / Incident Matrix used by the Air Force to develop written plans for each activity. This system can help you understand your risks and train new staff in a consistent manner. Presented by Phil Heeg of the U.S. Air Force.

-Teaming with Wildlife Builds Momentum Daily ***Parlor A***
This workshop will present and discuss the IAFWA's organization around a conservation initiative to manage the nation's fish and wildlife. Presented by Terry Messmer of Utah State University.

SESSION 7: Friday November 8th, 3:30 pm--5:30 pm

-UIAGM Practical ***West Ballroom***
Demonstrations of anchor systems, guide belays, hauling systems, crevasse rescue, short roping. Presented by Ross Cloutier of the University College of the Cariboo.

-Processing/Debriefing/Tracking.... Back to the Basics ***Collegiate Room***
This workshop will be excellent for new comers to the field of outdoor recreation and education to observe these skills as well as to get a chance to practice. Practical information and suggestions will be given. Presented by Fletch Dyer of Oklahoma State University.

-Situations and Disasters While on Expeditions ***Den***
This session will Review incidents in the wilderness, why and how they happen and how to control and prevent them. Presented by Mark Reynolds of the Mid America Bible College/ Wilderness Expeditions International.

SESSION 7: Friday November 8th, 3:30 pm–5:30 pm (Continued)

-Too Loose, Too Tight, Just Right: Anticipating your Ropes Course Maintenance Needs ***Parlor A***

This presentation is designed for ropes course managers and facilitators. Information and experiences will be shared regarding building, maintaining and inspecting ropes courses. Presented by Jim Wall and Dave Klim of Georgia College and State University.

-AORE General Membership Meeting & Board Elections ***Saltair Room***

All members of the Association of Outdoor Recreation and Education should plan on attending. This general meeting helps shape the future directions of our association.

SESSION 8: Saturday November 9th, 9:00 am–10:00 am

-Merlin Was an Experiential Educator, Too: The use of Archetypal Psychology and Mythology to Bring Adventure Back into the Program ***West Ballroom***

The workshop examines the use of Archetypal Psychology and Mythology to bring adventure back into your program. The session emphasizes finding personal significance in adventure activities through symbolism and rituals. Presented by Johnny Lee of the Hurricane Island Outward Bound School.

-What's More Basic Than a Family? The Effects of Family Participation in an Outdoor Adventure Recreation Program ***Collegiate Room***

This presentation describes the experiences of 28 families involved in one day adventure programs. We will discuss the results of pre and post activity questionnaires measuring perceptions of family cohesion, communication, problem solving and general functioning. Presented by Steve Kugath of the Western State College of Colorado.

-Outdoor Recreation Opportunities: Helping your Staff Enter the Job Market ***Panorama Room East***

This session covers suggestions and strategies for getting your staff or student employees successfully into the outdoor recreation job market. Application strategies, contacts, letters of recommendation, and outdoor resumes will be discussed. Presented by Kathryn Robertson of California State University, Sacramento.

-ICORE Site Selection Meeting ***Parlor A***

Help decide where future conferences will be held.

-The Importance of Natural History Within an Outdoor Recreation Program ***Saltair Room***

The presentation will concentrate on general material showing the connection between the natural history and outdoor recreation subjects. A sample plan or program for implementing the discussion of a winter forest ecosystem in your program will be addressed. Presented by Darek Staab of Utah State University.

SESSION 9: Saturday November 9th, 10:30 am–12:00 noon

-Networking in the Outdoor Industry: A Round Table Discussion ***West Ballroom***

Presented by Josh Bernstein, President & Publisher of The Outdoor Network.

-Program Safety and Risk Management: Proactive Approaches for Establishing Standards ***Collegiate Room***

Round table discussion dealing with the establishment of standards for the outdoor industry. Discussion items will include minimum employee qualifications and training, equipment standards, risk management plans, etc. Presented by Bob Brookover and Rick Harwell of Clemson University.

SESSION 9: Saturday November 9th, 10:30 am--12:00 noon (Continued)

-Basics of Expedition Planning. How to Plan a Great Trip ***Den***
This workshop will present a planning outline, examples and initial resources for the most important part of a good trip--the planning phase. Presented by John Cederquist of University of Utah.

-A Day at the Improv: How to Deal with Musculoskeletal Injuries in the Backcountry Panorama Room East
Accidents do happen...ankles are sprained, shoulders are dislocated and arms are broken. This hands on session will deal with the backcountry treatment principles of these injuries and the improvisation of splints. Presented by Brent Cochran of Appalachian State University and SOLO Wilderness Medicine.

-The Small Climbing Wall: Supervision, Management, and Programming ***Parlor A***
Two case studies in supervising, managing and programming the small climbing wall will be presented. The how's, who's, where's and why's, as well as budget and safety concerns will be discussed. Presented by W.T. Taylor and Andrew Martin of Middle Tennessee State University and Linda Potter of Vanderbilt University

SESSION 10: Saturday November 9th, 12:15 pm--1:15 pm

-Managing the Experience: Objectives Based Program Planning ***West Ballroom***
Objectives based program planning meshes a customer focused marketing approach to a mission or outcomes oriented strategy. The plan also helps staff understand their role in shaping the customer's experience while ensuring the program's larger objectives are met. Presented by Phil Heeg of the U.S. Air Force.

-Building a Backcountry Yurt- Student Style ***Collegiate Room***
This session will use slides and video to explain what a yurt is and how it can enhance student development and outdoor leadership. Sound wacky? The USU Outdoor Program yurt was designed, built and hauled in by over sixty student volunteers. It has an active and passive solar system, and cost less than an average raft. Presented by Kevin Kobe and Norman Goltra of Utah State University.

-A Day at the Improv. (Continued) ***Panorama Room East***

-Putting Leave No Trace into an Extended Outdoor Education Course ***Parlor A***
This session will address how one WEA affiliate has adjusted curriculum to incorporate LNT and the observed benefits to students and the land. Presented by Chris Cashel of Oklahoma State University.

-Challenge Initiative Facilitation Techniques: Adaptive Training's Effects on Self-Perception
Saltair Room
This session is directed at helping practitioners understand the difference between three commonly used facilitation techniques used with challenge initiatives. The discussion will suggest why one facilitation technique may work best. Presented by Derek Tate of the University of Montana.

Presenter Biographies

Aram Attarian, Ph.D.

Aram is an Associate Professor in the Department of Physical Education at North Carolina State University where he teaches in the area of Outdoor Adventure Pursuits. For the past 18 years he has been an instructor and course director at the North Carolina Outward Bound School.

Cheryl Berger

Cheryl is a graduate student in Sports Management at the University of Florida. She is the Co-director of the Women in the Wilderness and theTravel and Recreation (TRiP) Summer Office Director.

Josh Bernstein

Josh, president and publisher of The Outdoor Network, is an outdoor enthusiast who enjoys all aspects of the outdoor industry. He combines his position as the administrative director for an outdoor school with his talents as a professional photographer & graphic designer to bring interest and relevance to the articles in each newsletter and the mission of The Outdoor Network.

Bob Brookover

Bob is the Outdoor Recreation and Education Program Director at Clemson University. He has a B.S. and Masters degree in Parks, Recreation and Tourism Management from Clemson University and is currently enrolled in the Education Leadership Ph.D. Degree Program at Clemson. His outdoor interests include rock climbing, kayaking and "nude" backpacking.

Dr. Chris Cashel

Dr. Cashel is an Associate Professor of Leisure Studies at Oklahoma State University where she has researched process skills and group dynamics with outdoor groups. She has also been an instructor with WEA for 15 years.

John Cederquist

John spends his weekdays coordinating courses for outdoor educators at the University of Utah. All other free time is spent dreaming of river trips he rarely has time to experience.

Kent Clement

Associate professor of Outdoor Recreation Leadership at Colorado Mountain College. Has been working professionally in the field of outdoor education and wilderness leadership education professionally since 1978. He holds degrees in Ecology and Recreation and is completing his dissertation for a Ph.D. in Natural Resource Management. Kent is the former Executive Director of the Wilderness Education Association and has been a mountaineering, canyoneering and sea kayaking instructor since the early 1980's.

K. Ross Cloutier

Ross is an internationally qualified climbing guide who has been involved in guiding and mountain rescue since 1978. He is the Coordinator of the Adventure Guide Program at the University College of the Cariboo. Ross has been involved in organizing expeditions and guiding journeys to 25 countries. He was the climbing leader for the 1991 Canadian Everest Expedition and has first ascents in numerous countries. Ross has studied Recreational Administration, Outdoor Pursuits, and has an MBA in International Business.

Brent Cochran

Brent is a coordinator of the Outdoor Programs and adjunct faculty in the Health, Leisure and Exercise Science department at Appalachian State University in Boone, North Carolina. He is also a Wilderness First Responder instructor at SOLO Wilderness Medicine in Conway, New Hampshire.

John Currant

John is a student at Colorado Mountain College currently enrolled in the Outdoor Recreation Leadership program. He has volunteered extensively in the past with the U.S. Forest Service, Rochester, Vermont, as well as The Green Mountain Club, Vermont maintaining the Long Trail and taking part in shelter restoration.

Francisco Detrell

Francisco is the Director of Expediciones Ecotur in Ensenada, Mexico and an adventure recreation consultant to the Baja California Secretary of Tourism. In addition he is a professor of Eco-tourism at the Universidad de Tijuana.

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Fletch Dyer

Fletch is currently completing his M.A. in Leisure Service Management at Oklahoma State University, where he teaches backpacking, climbing and First-Aid/CPR. He has six years experience in challenge courses, is a certified WEA Outdoor Leader and LNT trainer.

Norman Goltra

Norman is a carpenter/builder in Cache Valley, Utah and owner of NRG enterprises. He is pursuing a degree in Parks and Recreation at Utah State University.

Steve P. Guthrie Ph.D.

Steve Guthrie, Ph.D., is currently an Assistant Professor in the Outdoor Recreation Leadership Program at Unity College in Maine. Previously he was an outdoor program coordinator for the University of Nebraska-Omaha. He did his graduate work at the University of Oregon. Steve is also an AORE board member.

Rick Harwell

Rick serves as the Executive Director of the South Carolina Rural Recreation Project and the American Humanics Program which are administered through the Department of Parks, Recreation and Tourism Management at Clemson University. He has held various positions in the parks and recreation field over the last 15 years. Rick received his Bachelors and Masters Degrees in Recreation Administration from Memphis State University and is completing his Ph.D. in Recreation and Leisure Studies at the University of Utah.

Phil Heeg

Phil, as Outdoor Recreation Program Manager, provides operational guidance for a $50 million per year Air Force program with more than 100 locations around the world. The program has grown more than 66 percent despite the draw-down of the Armed Forces. He has twenty years experience in recreation and leisure services, is a Certified Leisure Professional, and has been presented both Fellow and Executive Fellow Awards by the Armed Forces Recreation Society.

Ken Henry

Ken has completed the Outdoor Semester in the Rockies program and now is enrolled in the Outdoor Recreational Leadership program at Colorado Mountain College. He has extensive hours in the backcountry, has lead expeditions in Alaska, and organized and lead guided fly fishing trips in Colorado.

David Holmes, Ph.D.

David has been a participant and instructor of outdoor/risk activities for more than 30 years. He has experience in areas including mountaineering, sky diving, whitewater, and rock and ice climbing. He has numerous certificates and professional credentials, and has given many seminars, classes and workshops throughout his career.

Dr. Michael G. Huffman

Michael is an Associate Professor of Leisure Studies at the University of Memphis. He has conducted research on visitor safety and resource impact issues for the National Park Service and USDA Forest Service. He has worked as a ranger for the National Park Service and an interpreter for Tennessee State Parks.

Jacqueline Hutchison

Jacqueline is presently managing the Campus Outdoor Centre at the University of Alberta. Before that she worked for the Catholic School Board setting up programs for outdoor education. Through these organizations she has started several girls, women & seniors trips which have all been successful.

Dave Klim

Dave is in his final year as a graduate student in the M. Ed. in Outdoor Education Administration at Georgia College and State University. He is currently a Graduate Teaching Assistant at the school and is responsible for teaching a variety of outdoor education classes. For over 10 years he traveled extensively while building and inspecting ropes courses for Project Adventure.

Kevin Kobe

Kevin is the Director of the Outdoor Program at Utah State University in Logan, Utah. He is currently the President of the Logan Canyon Coalition, a non-profit educational group working on the protection of Logan Canyon.

Steve Kugath

Steve is currently a Professor in the Recreation Program at Western State College of Colorado. He earned a degree in Family Sciences from Brigham Young University. He earned his Ph.D. from Indiana University.

Johnny Lee

Johnny has worked for Outward Bound since 1993 and has achieved an M.A. in Experiential Education from Mankato State University. Along with a career in writing, he wants to pursue a doctorate researching experiential education and archetypal psychology.

Jim Lustig

Jim is the Outdoor Programs Coordinator for the Leisure Connection Outdoor Program at San Diego State University. He also teaches in the outdoor emphasis area for the department of Parks, Recreation and Tourism.

Andrew Martin

Andy is in his second year of graduate studies at Middle Tennessee State University, working toward a M.S. in Recreation Administration. His duties include trip planning/leading, outdoor equipment and climbing wall supervision.

Terry Messmer, Ph.D.

Terry is an Assistant Professor at Utah State University and an Extension Wildlife Specialist, for the Fisheries and Wildlife Department.

James H. Moss

Jim Moss is a Denver area trial attorney specializing in outdoor recreation law. He has presented to Western River Guides Association, Colorado River Outfitters Association, America Outdoors, International Conference on Outdoor Recreation and Education, the Wilderness Education Association and many others. He is a guest lecturer at Colorado State University and Prescott College. He has been published in the *Outdoor Network*, *The Outdoor Retailer*, *NACLO News*, the *Proceedings of the International Conference on Outdoor Recreation and Education* and *Couloir Magazine*. With all this he still has time to work 70 to 100 days each year as an outdoor guide for whitewater companies in Utah, Colorado and Arizona.

Linda Potter

Linda has been the outdoor director at Vanderbilt University since its inception in 1989. She opened the Vanderbilt climbing wall shortly after arriving in Nashville.

Mark Reynolds

Mark is the department head of the Outdoor Wilderness Program at Mid America Bible College and Founder of Wilderness Expeditions International. He is the author of several publications including *In Searching For Peace: An Operations Manual For Wilderness and Reality Therapy Programs* and *A Study of Wilderness/ Reality Therapy Process from the Theory of Dr. William Glasser.*

Kathyrn Robertson

Kathy has been the Director of ASI Peak Adventures, the outdoor program on the California State University, Sacramento campus for eight years. She has also been an instructor for 11 years in the Recreation and Leisure Studies Department, teaching a course in Outdoor Recreation. Over the years she has helped hundreds of students and staff find employment in the field of recreation.

Janet Ross

Janet is a graduate of Prescott College and has been a professional outdoor educator since 1971. She founded Four Corners School of Outdoor Education in 1984, with a mission to educate people of all ages and backgrounds about the need to protect the natural and cultural treasures of the southwest. Today she serves over 350 adults and 1000 children a year with environmental education, wilderness advocacy, teaching environmental ethics and other education and research field programming.

Tom Saunders

Tom is currently enrolled in the Outdoor Recreation Leadership program at Colorado Mountain College. During the previous semester he attended the Outdoor Semester in the Rockies program where he was familiarized with leadership skills and received an education in Ecology, Wilderness Philosophy, and snow, desert, and mountain orientations.

Darek Staab

Darek received his B.S. in Fisheries and Wildlife from Utah State University in 1996. He is an outdoor instructor for both the USU Outdoor Program and Western Wildlife Camp in Estes Park, Colorado.

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Colleen Swagar

Colleen has been a program coordinator at the University of Calgary's Outdoor Program Centre since 1989. She has experience in staffing for rental operations, retail operations, instructional programs and backcountry instructor operations. She has just completed one year of study towards her MBA.

Derek Tate, M.S.

Derek is a Doctoral student in Outdoor Recreation at the University of Montana. He earned his M.S. in Parks, Recreation and Tourism with an emphasis in outdoor therapeutic recreation at the University of Utah. He has worked as a recreation therapist with adolescents and was the original director of Project TRAILS.

W.T. Taylor.

W.T. has been director of the Outdoor Pursuits Program and Intramural at Middle Tennessee State University for the past 2 years. He has supervised the climbing wall since it opened in 1995.

Briget Tyson

Briget earned her M.A. degree from the University of New Mexico. Her project was an extensive analysis of gender differences at NOLS. She is a WEA certified Wilderness Instructor and completed her Wilderness First Responder course through NASaR.

Christy Vollbracht

Christy is a senior in Wildlife Ecology & Latin American Studies at the University of Florida. She has worked with the Travel and Recreation Program (TRiP) for 3 years and is currently the director of the University's first Women in the Wilderness Program.

Jim Wall

Jim is currently the Coordinator of the B.G.S. in Outdoor Education and M. Ed. in Outdoor Education Administration at Georgia College and State University. He is also the Director of the Outdoor Center, which includes a low and high ropes course, climbing wall and tower, and several educational facilities. Jim is the owner of Wall's Outdoor Associates, Inc. and has been building and inspecting ropes courses for over 18 years. Jim is currently co-authoring a book with Catherine Tait and Karl Rohnke due out in the fall entitled *The Complete Ropes Course Manual.*

Ron Watters

Ron Watters is the Director of the Idaho State University Outdoor Program and is the author of five books.

David J. Webb, B.S., M.A., CLP

David has operated Brigham Young University's outdoor program, BYU Outdoors Unlimited, since its beginning 14 years ago. He has served on national outdoor committees for several professional associations and has been a conference co-chair of several national and international conferences on outdoor recreation. David has published and presented frequently, contributed to several outdoor program books, and is the author of the *Outdoor Recreation Program Directory & Data/Resource Guide*. The newly revised second edition was published March 1996.

Scott F. Woods

Scott obtained his B.A. from the University of Utah in Special Education, his M.A. from BYU in Educational Psychology and his M.P.H. from the University of Utah. He has taught outdoor recreation at Ricks College. He is a certified Wilderness First Responder and Back Country Ski Guide.

Jay Zarr M.S. Experiential Education, Ph.D. Candidate Leadership & Innovation

Jay is the Director of Experiential Learning Center at the University of Colorado. He has more than 20 years in the field, is a WEA instructor, a PSIA Nordic instructor, a published poet and he helped design the Tenth Mountain Trail. Jay has also climbed throughout North and South America.

Lynn Zwaagstra

Lynn is a graduate student at the University of Utah. She has been an active trip leader for eight years and has taught a variety of outdoor skill clinics. In addition, Lynn has been deeply involved with ropes courses and facilitating initiatives for a wide range of clientele.

"If you ever teach a yodeling class, probably the hardest thing is to keep the students from just trying to yodel right off. You see, we <u>build</u> to that." --Jack Handy from *Deep Thoughts*